STEREO AMPLIFIER

SA-8500II

S, HG, KC

<ART-207-0>

Original

Additional

Service Manual

MODEL SA-8500II COMES IN FOUR VERSIONS DISTINGUISHED AS FOLLOWS:

Type	Voltage	Remarks
KU	120V only	UL (U.S.A.) approved
KC	120V only	CSA (Canada) approved
HG	220V and 240V (Switchable)	SEMKO (Sweden), NEMKO (Norway), DEMKO (Denmark) and EI (Finland) approved
S	110V, 120V, 220V and 240V (Switchable)	General export model

This additional service manual is applicable to the S, HG and KC types. For servicing of the S, HG and KC types please refer to the KU type manual <ART-197> with exception of descriptions in this manual.

PIONEER®

CONTRAST OF MISCELLANEOUS PARTS

NOTE:
- *Capacitors: in μF unless otherwise noted p:pF*
- *Resistors: in Ω, ¼W unless otherwise noted k:kΩ, M:MΩ*

SWITCHES

Symbol	Description	Part No.			
		KU-type	KC-type	HG-type	S-type
S13	Lever switch (POWER)	ASK-124	ASK-124	ASK-127	ASK-128
S16	Plug in selector	.....	.....	AKX-037*	AKR-031**

* 2-position line voltage selector (220V/240V)
** 4-position line voltage selector (110V/120V/220V/240V) with fuse holder

TRANSFORMERS

Symbol	Description	Part No.			
		KU-type	KC-type	HG-type	S-type
T1	Power transformer (L)	ATT-366	ATT-368	ATT-370	ATT-372
T2	Power transformer (R)	ATT-367	ATT-369	ATT-371	ATT-373

FUSES

Symbol	Description	Part No.			
		KU-type	KC-type	HG-type	S-type
FU1	Fuse 3A (for 120V)	AEK-101	AEK-101	.....	.....
	Fuse 2.5A (for 220V or 240V)	.....	.....	.....	AEK-102
	Fuse 1.6A (for 220V or 240V)	.....	.....	AEK-405	.....
	Fuse 5A (for 110V or 120V)	.....	.....	.....	AEK-108
FU2	Fuse 3A (for 120V)	AEK-101	AEK-101	.....	.....
	Fuse 1.6A (for 220V or 240V)	.....	.....	AEK-405	.....

OTHERS

Symbol	Description	Part No.			
		KU-type	KC-type	HG-type	S-type
	AC socket (AC OUTLETS)	AKP-004	AKP-004	.....	AKP-004
	Recessed plug (AC INLET)	.....	.....	AKP-008	.....
	AC power cord	ADG-005	ADG-005	.....	ADG-017
	Packing case	AHD-430	AHD-431	AHD-432	AHD-430
	Switch assembly	AWS-108	AWS-110	AWS-112	AWS-113
	5P connector assembly	.....	.....	AWX-062	AWX-062
	Power amplifier assembly	AWH-051	AWH-051	AWH-061	AWH-051

CAPACITORS

Symbol	Description	Part No.			
		KU-type	KC-type	HG-type	S-type
C11	Ceramic 0.01 125V	.....	ACG-014	.....	.....
	Ceramic 0.01 250V	ACG-001	.....	.....	ACG-001
C12	Ceramic 0.01 250V	.....	.....	.....	ACG-001

FURNISHED PARTS

Symbol	Description	Part No.			
		KU-type	KC-type	HG-type	S-type
	Operating instructions (English)	ARB-205	ARB-205	ARB-216	ARB-216
	Operating instructions (German/French)	.....	.....	ARD-106	.....
	Fuse 2.5A	.....	.....	.....	AEK-102
	Fuse 5A	.....	.....	.....	AEK-108
	Vinyl pouch (for fuses)	.....	.....	.....	E11-033

SA-8500II/KC

Miscellaneous Parts for KC-type

NOTE:
- *Capacitors: in μF unless otherwise noted p:pF*
- *Resistors: in Ω, ¼W unless otherwise noted k:kΩ, M:MΩ*

SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor	2SD587A/A/-R or Q
Q2	Transistor	2SD587A/A/-R or Q
Q3	Transistor	2SB617A/A/-R or Q
Q4	Transistor	2SB617A/A/-R or Q
Q5	Transistor	2SD587A/A/-R or Q
Q6	Transistor	2SD587A/A/-R or Q
Q7	Transistor	2SB617A/A/-R or Q
Q8	Transistor	2SB617A/A/-R or Q

LAMP, FUSES

Symbol	Description	Part No.
PL1	Lamp with leads 8V, 50mA	AEL-081
FU1	Fuse 3A	AEK-101
FU2	Fuse 3A	AEK-101

SWITCH

Symbol	Description	Part No.
S13	Lever switch (POWER)	ASK-124

TRANSFORMERS

Symbol	Description	Part No.
T1	Power transformer (L)	ATT-368
T2	Power transformer (R)	ATT-369

RESISTOR

Symbol	Description	Part No.
VR1	Variable resistor 100k 32-step (VOLUME)	ACV-171

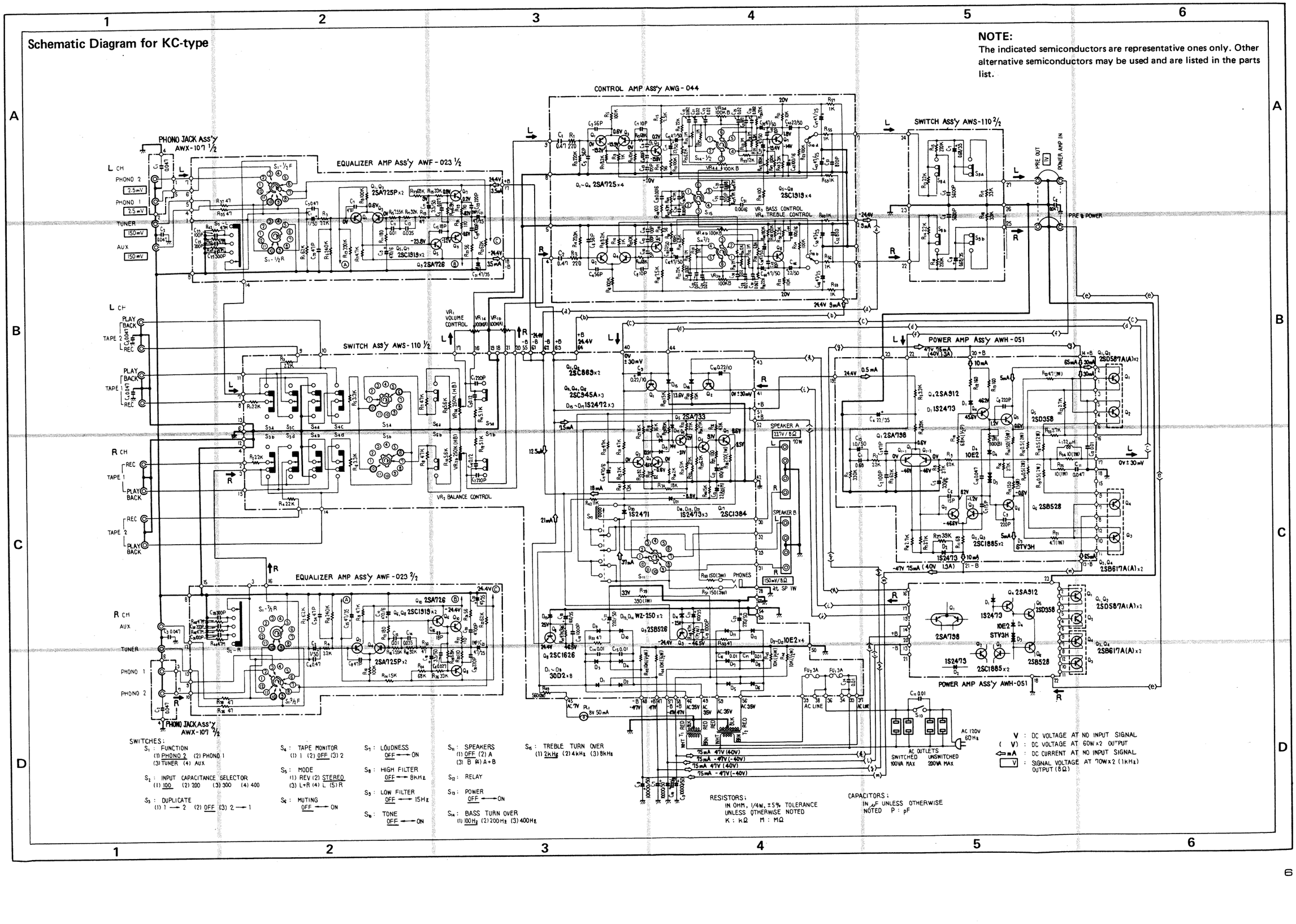
CAPACITORS

Symbol	Description			Part No.
C2	Ceramic	0.047	50V	CKDYF 473Z 50
C3	Ceramic	0.047	50V	CKDYF 473Z 50
C4	Ceramic	0.047	50V	CKDYF 473Z 50
C5	Ceramic	0.047	50V	CKDYF 473Z 50
C6	Ceramic	0.047	50V	CKDYF 473Z 50
C7	Electrolytic	10,000	50V	ACH-064
C8	Electrolytic	10,000	50V	ACH-064
C9	Electrolytic	10,000	50V	ACH-064
C10	Electrolytic	10,000	50V	ACH-064
C11	Ceramic	0.01	125V	ACG-014

- The rear panel components of KC-type are the same as KU-type.

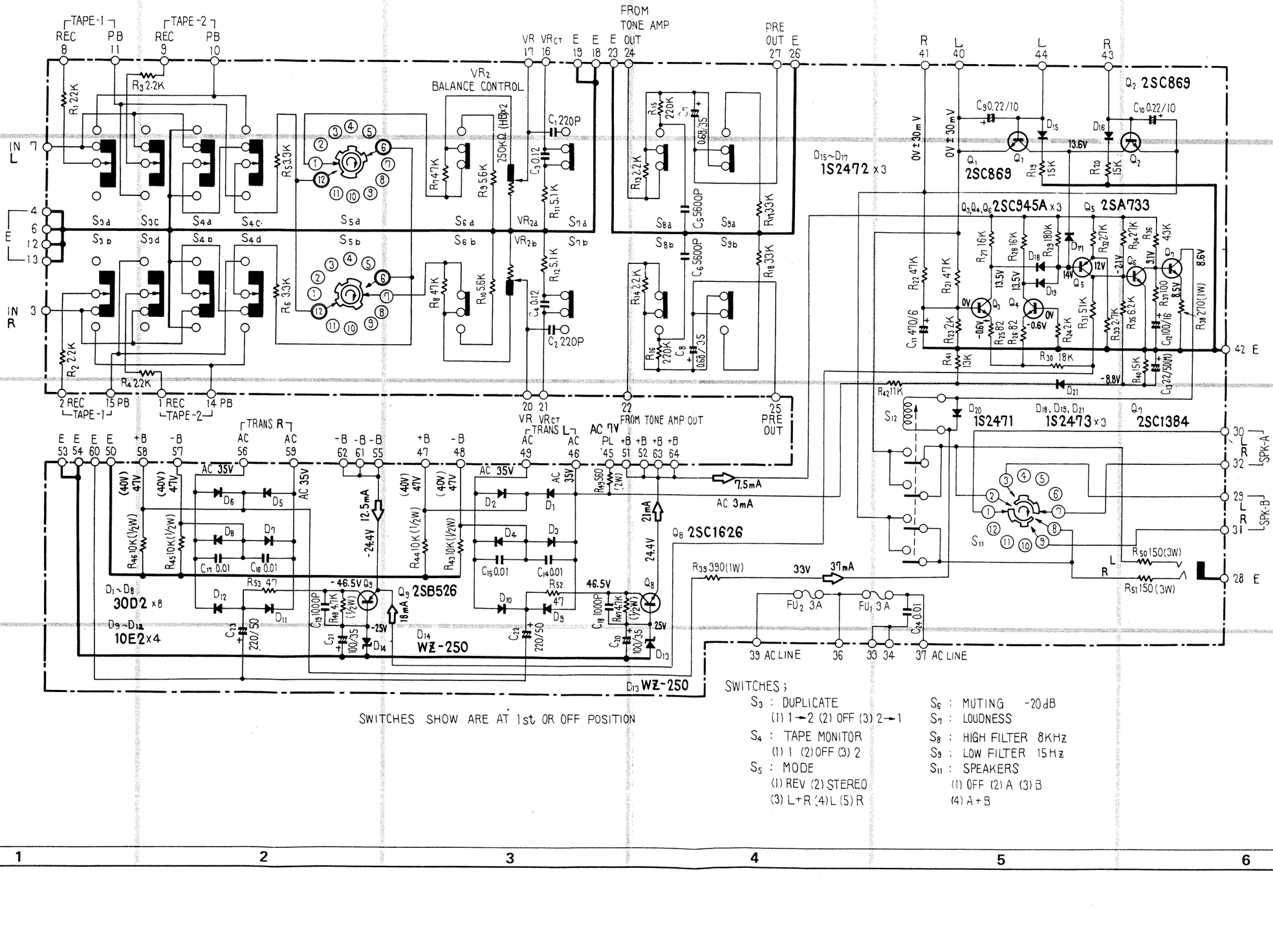
Schematic Diagram for KC-type

NOTE:
The indicated semiconductors are representative ones only. Other alternative semiconductors may be used and are listed in the parts list.


CONTROL AMP ASS'y AWG-044
EQUALIZER AMP ASS'y AWF-023 1/2
EQUALIZER AMP ASS'y AWF-023 2/2
PHONO JACK ASS'y AWX-107 1/2
PHONO JACK ASS'y AWX-107 2/2
SWITCH ASS'y AWS-110 1/2
SWITCH ASS'y AWS-110 2/2
POWER AMP ASS'y AWH-051
L CH
R CH
PHONO 2
PHONO 1
TUNER
AUX
TAPE 1
TAPE 2
PLAY BACK
REC
VR1 VOLUME CONTROL
VR2 BALANCE CONTROL
VR3 BASS CONTROL
VR4 TREBLE CONTROL
SPEAKER A
SPEAKER B
PHONES
PRE OUT
POWER AMP IN
PRE & POWER
AC OUTLETS
SWITCHED 100VA MAX
UNSWITCHED 200VA MAX
AC 120V 60Hz
AC LINE
Q1~Q4 2SA725 x4
Q5~Q8 2SC1913 x4
Q1,Q2 2SC865 x2
Q3,Q4,Q5 2SC945A x3
Q6 2SA733
Q7 2SC1384
Q8 2SB528
Q9 2SC1626
Q1,Q2 2SA726
Q3,Q4 2SC1913 x2
Q5,Q6 2SA725P x2
Q1 2SA912
Q2 2SD358
Q3 STV3H
Q4 2SA798
Q1,Q2 2SC1885 x2
Q3,Q4 2SB617A(A) x2
Q1,Q2 2SD587A(A) x2
D1~D8 1S2472 x3
D9,D10,D11 1S2471
D12,D13,D14 1S2473 x3
D15~D18 WZ-250 x2
D19~D22 10E2 x4
D1~D8 30D2 x8
SWITCHES:
S1 : FUNCTION (1) PHONO 2 (2) PHONO 1 (3) TUNER (4) AUX
S2 : INPUT CAPACITANCE SELECTOR (1) 100 (2) 200 (3) 300 (4) 400
S3 : DUPLICATE (1) 1 — 2 (2) OFF (3) 2 — 1
S4 : TAPE MONITOR (1) 1 (2) OFF (3) 2
S5 : MODE (1) REV (2) STEREO (3) L+R (4) L (5) R
S6 : MUTING OFF — ON
S7 : LOUDNESS OFF — ON
S8 : HIGH FILTER OFF — 8kHz
S9 : LOW FILTER OFF — 15Hz
S10 : TONE OFF — ON
S11 : SPEAKERS (1) OFF (2) A (3) B (4) A+B
S12 : RELAY
S13 : POWER OFF — ON
S14 : BASS TURN OVER (1) 100Hz (2) 200Hz (3) 400Hz
S15 : TREBLE TURN OVER (1) 2kHz (2) 4kHz (3) 8kHz
RESISTORS: IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K : kΩ M : MΩ
CAPACITORS: IN μF UNLESS OTHERWISE NOTED P : pF
V : DC VOLTAGE AT NO INPUT SIGNAL
(V) : DC VOLTAGE AT 60W x 2 OUTPUT
mA : DC CURRENT AT NO INPUT SIGNAL
V : SIGNAL VOLTAGE AT 10W x 2 (1kHz) OUTPUT (8Ω)

Switch Assembly (AWS-110)

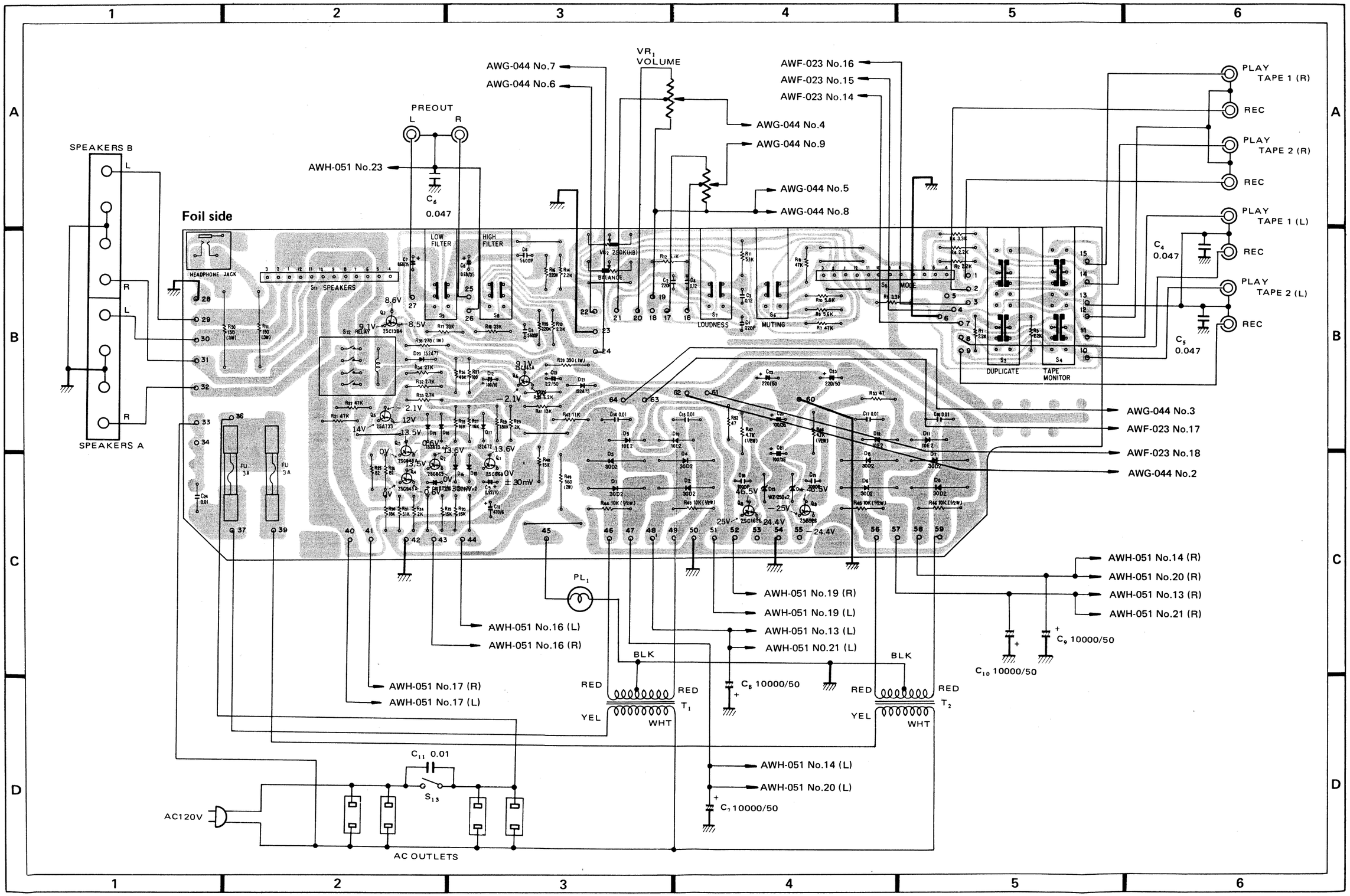
NOTE:
This assembly is applicable to the KC-type.



SWITCHES SHOW ARE AT 1st OR OFF POSITION

SWITCHES;

- S_3 : DUPLICATE (1) 1→2 (2) OFF (3) 2→1
- S_4 : TAPE MONITOR (1) 1 (2) OFF (3) 2
- S_5 : MODE (1) REV (2) STEREO (3) L+R (4) L (5) R
- S_6 : MUTING -20dB
- S_7 : LOUDNESS
- S_8 : HIGH FILTER 8KHz
- S_9 : LOW FILTER 15Hz
- S_{11} : SPEAKERS (1) OFF (2) A (3) B (4) A+B


1
2
3
4
5
6
A
B
C
D
SPEAKERS B
SPEAKERS A
L
R
Foil side
PREOUT
L
R
AWH-051 No.23
C6 0.047
AWG-044 No.7
AWG-044 No.6
VR1 VOLUME
AWG-044 No.4
AWG-044 No.9
AWG-044 No.5
AWG-044 No.8
AWF-023 No.16
AWF-023 No.15
AWF-023 No.14
PLAY TAPE 1 (R)
REC
PLAY TAPE 2 (R)
REC
PLAY TAPE 1 (L)
REC
PLAY TAPE 2 (L)
REC
C4 0.047
C5 0.047
HEADPHONE JACK
5ch SPEAKERS
LOW FILTER
HIGH FILTER
BALANCE
LOUDNESS
MUTING
MODE
DUPLICATE
TAPE MONITOR
S12 RELAY
AWG-044 No.3
AWF-023 No.17
AWF-023 No.18
AWG-044 No.2
AWH-051 No.14 (R)
AWH-051 No.20 (R)
AWH-051 No.13 (R)
AWH-051 No.21 (R)
C9 10000/50
C10 10000/50
PL1
AWH-051 No.19 (R)
AWH-051 No.19 (L)
AWH-051 No.13 (L)
AWH-051 No.21 (L)
AWH-051 No.16 (L)
AWH-051 No.16 (R)
BLK
RED
YEL
WHT
T1
T2
C8 10000/50
AWH-051 No.17 (R)
AWH-051 No.17 (L)
C11 0.01
S13
AC120V
AC OUTLETS
AWH-051 No.14 (L)
AWH-051 No.20 (L)
C7 10000/50

Parts List of Switch Assembly (AWS-110, for KC)

SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor	2SC869-D or C
Q2	Transistor	2SC869-D or C
Q3	Transistor	2SC945A-Q or R
Q4	Transistor	2SC945A-Q or R
Q5	Transistor	2SA733-Q or R (2SA823-Q or R)
Q6	Transistor	2SC945A-Q or R
Q7	Transistor	2SC1384-Q or R
Q8	Transistor	2SC1626-O or Y (2SD381-M or L)
Q9	Transistor	2SB526-C or D (2SA816-O or Y)
D1	Diode	30D2 (GP-25D) (ERC01-02)
D2	Diode	30D2 (GP-25D) (ERC01-02)
D3	Diode	30D2 (GP-25D) (ERC01-02)
D4	Diode	30D2 (GP-25D) (ERC01-02)
D5	Diode	30D2 (GP-25D) (ERC01-02)
D6	Diode	30D2 (GP-25D) (ERC01-02)
D7	Diode	30D2 (GP-25D) (ERC01-02)
D8	Diode	30D2 (GP-25D) (ERC01-02)
D9	Diode	10E2 (SIB01-02) (1S1886)
D10	Diode	10E2 (SIB01-02) (1S1886)
D11	Diode	10E2 (SIB01-02) (1S1886)
D12	Diode	10E2 (SIB01-02) (1S1886)
D13	Zener diode	WZ-250
D14	Zener diode	WZ-250
D15	Diode	1S2472 (1S1554)
D16	Diode	1S2472 (1S1554)
D17	Diode	1S2472 (1S1554)
D18	Diode	1S2473 (1S1555)
D19	Diode	1S2473 (1S1555)
D20	Diode	1S2471
D21	Diode	1S2473 (1S1555)

SWITCHES

Symbol	Description	Part No.
S3	Lever switch (DUPLICATE)	ASK-113
S4	Lever switch (MONITOR)	ASK-113
S5	Rotary switch (MODE)	ASD-053
S6	Lever switch (MUTING)	ASK-110
S7	Lever switch (LOUDNESS)	ASK-110
S8	Lever switch (HIGH FILTER)	ASK-110
S9	Lever switch (LOW FILTER)	ASK-110
S11	Rotary switch (SPEAKERS)	ASD-054
S12	Relay	ASR-023

RESISTORS

Symbol	Description			Part No.
R1	Carbon film	2.2k		RD¼PS 222J
R2	Carbon film	2.2k		RD¼PS 222J
R3	Carbon film	2.2k		RD¼PS 222J
R4	Carbon film	2.2k		RD¼PS 222J
R5	Carbon film	3.3k		RD¼PS 332J
R6	Carbon film	3.3k		RD¼PS 332J
R7	Carbon film	47k		RD¼PS 473J
R8	Carbon film	47k		RD¼PS 473J
R9	Carbon film	5.6k		RD¼PS 562J
R10	Carbon film	5.6k		RD¼PS 562J
R11	Carbon film	5.1k		RD¼PS 512J
R12	Carbon film	5.1k		RD¼PS 512J
R13	Carbon film	2.2k		RD¼PS 222J
R14	Carbon film	2.2k		RD¼PS 222J
R15	Carbon film	220k		RD¼PS 224J
R16	Carbon film	220k		RD¼PS 224J
R17	Carbon film	33k		RD¼PS 333J
R18	Carbon film	33k		RD¼PS 333J
R19	Carbon film	15k		RD¼PS 153J
R20	Carbon film	15k		RD¼PS 153J
R21	Carbon film	47k		RD¼PS 473J
R22	Carbon film	47k		RD¼PS 473J
R23	Carbon film	2k		RD¼PS 202J
R24	Carbon film	2k		RD¼PS 202J
R25	Carbon film	82		RD¼PS 820J
R26	Carbon film	82		RD¼PS 820J
R27	Carbon film	16k		RD¼PS 163J
R28	Carbon film	16k		RD¼PS 163J
R29	Carbon film	180k		RD¼PS 184J
R30	Carbon film	18k		RD¼PS 183J
R31	Carbon film	51k		RD¼PS 513J
R32	Carbon film	2.7k		RD¼PS 272J
R33	Carbon film	2.7k		RD¼PS 272J
R34	Carbon film	27k		RD¼PS 273J
R35	Carbon film	6.2k		RD¼PS 622J
R36	Carbon film	43k		RD¼PS 433J
R37	Carbon film	100		RD¼PS 101J
R38	Metal oxide	270	1W	RS1P 271J
R39	Metal oxide	390	1W	RS1P 391J
R40	Carbon film	15k		RD¼PS 153J
R41	Carbon film	13k		RD¼PS 133J
R42	Carbon film	11k		RD¼PS 113J
R43	Carbon film	10k	½W	RD½PS 103J
R44	Carbon film	10k	½W	RD½PS 103J
R45	Carbon film	10k	½W	RD½PS 103J
R46	Carbon film	10k	½W	RD½PS 103J
R47	Carbon film	4.7k	½W	RD½PS 472J
R48	Carbon film	4.7k	½W	RD½PS 472J
R49	Metal oxide	560	2W	RS2P 561J
R50	Metal oxide	150	3W	RS3P 151J
R51	Metal oxide	150	3W	RS3P 151J
R52	Carbon film	47		RD¼PSF 470J
R53	Carbon film	47		RD¼PSF 470J
VR2	Variable resistor 250k-HB (BALANCE)			ACV-172

CAPACITORS

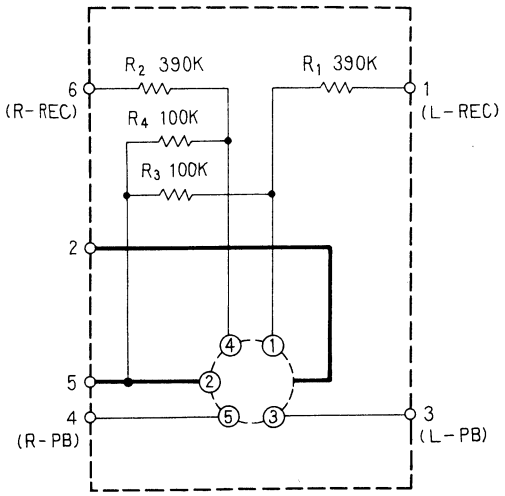
Symbol	Description			Part No.
C1	Ceramic	220p	50V	CCDSL 221K 50
C2	Ceramic	220p	50V	CCDSL 221K 50
C3	Mylar	0.12	50V	CQMA 124K 50
C4	Mylar	0.12	50V	CQMA 124K 50
C5	Mylar	0.0056	50V	CQMA 562J 50
C6	Mylar	0.0056	50V	CQMA 562J 50
C7	Electrolytic	0.68	35V	CSZA R68M 35
C8	Electrolytic	0.68	35V	CSZA R68M 35
C9	Electrolytic	0.22	10V	CSSA R22M 10
C10	Electrolytic	0.22	10V	CSSA R22M 10
C11	Electrolytic	470	6V	CEA 471P 6
C12	Electrolytic	100	16V	CEA 101P 16
C13	Electrolytic	2.2	50V	ACH-317
C14	Ceramic	0.01	150V	ACG-004
C15	Ceramic	0.01	150V	ACG-004
C16	Ceramic	0.01	150V	ACG-004
C17	Ceramic	0.01	150V	ACG-004
C18	Ceramic	0.001	50V	CKDYF 102Z 50
C19	Ceramic	0.001	50V	CKDYF 102Z 50
C20	Electrolytic	100	35V	CEA 101P 35
C21	Electrolytic	100	35V	CEA 101P 35
C22	Electrolytic	220	50V	CEA 221P 50
C23	Electrolytic	220	50V	CEA 221P 50
C24	Ceramic	0.01	125V	ACG-014

OTHERS

Symbol	Description	Part No.
	Phone jack (PHONES)	AKN-008
	Fuse clip	AKR-013
	Washer faced nut M9	ABN-024
	Special nut	ABN-027

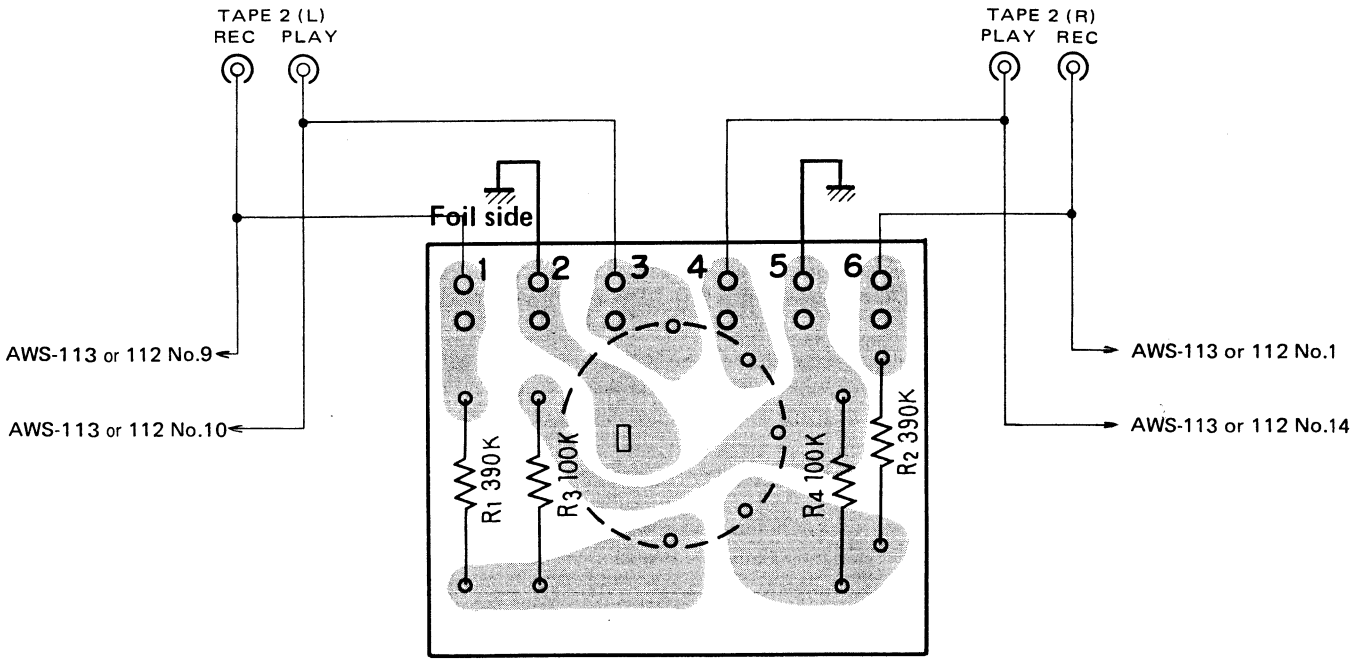
5P CONNECTOR ASSEMBLY(AWX-062)

NOTE:
This assembly (AWX-062) is applicable to the S and HG types.



Parts List

Symbol	Description	Part No.
R1	Carbon film resistor 390k	RD¼PS 394J
R2	Carbon film resistor 390k	RD¼PS 394J
R3	Carbon film resistor 100k	RD¼PS 104J
R4	Carbon film resistor 100k	RD¼PS 104J
	Connector socket (REC/PLAY)	AKP-007



SA-8500II/S

Miscellaneous Parts for S-type

NOTE:
- *Capacitors: in μF unless otherwise noted p:pF*
- *Resistors: in Ω, ¼W unless otherwise noted k:kΩ, M:MΩ*

SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor	2SD587A/A/-R or Q
Q2	Transistor	2SD587A/A/-R or Q
Q3	Transistor	2SB617A/A/-R or Q
Q4	Transistor	2SB617A/A/-R or Q
Q5	Transistor	2SD587A/A/-R or Q
Q6	Transistor	2SD587A/A/-R or Q
Q7	Transistor	2SB617A/A/-R or Q
Q8	Transistor	2SB617A/A/-R or Q

LAMP, FUSES

Symbol	Description	Part No.
PL1	Lamp with leads 8V, 50mA	AEL-081
FU1	Fuse 2.5A (for 220V or 240V)	AEK-102
	Fuse 5A (for 110V or 120V)	AEK-108

SWITCHES

Symbol	Description	Part No.
S13	Lever switch (POWER)	ASK-128
S16	Plug in selector (4-position)	AKR-031

TRANSFORMERS

Symbol	Description	Part No.
T1	Power transformer (L)	ATT-372
T2	Power transformer (R)	ATT-373

RESISTOR

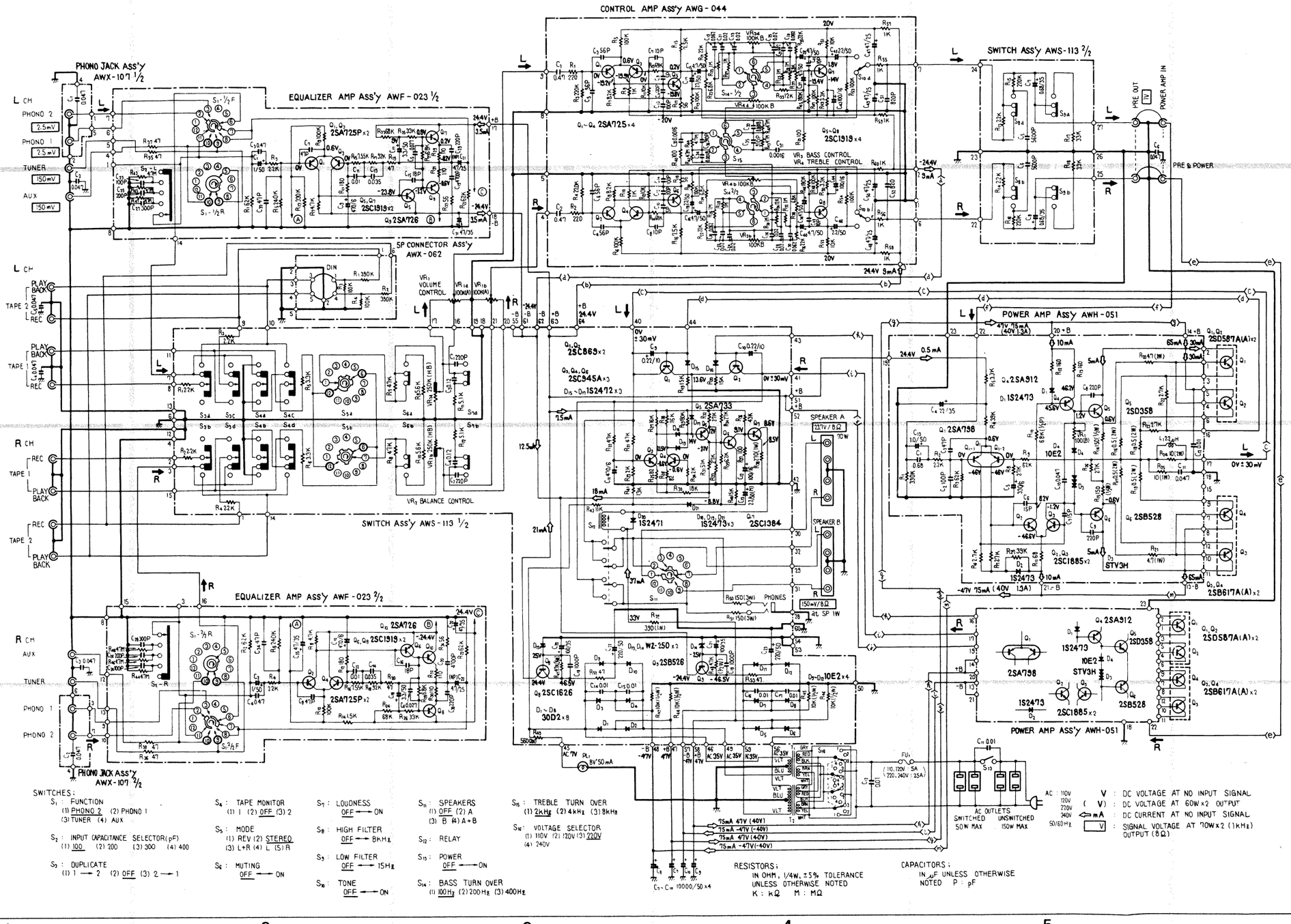
Symbol	Description	Part No.
VR1	Variable resistor 100k 32-step (VOLUME)	ACV-171

CAPACITORS

Symbol	Description			Part No.
C2	Ceramic	0.047	50V	CKDYF 473Z 50
C3	Ceramic	0.047	50V	CKDYF 473Z 50
C4	Ceramic	0.047	50V	CKDYF 473Z 50
C5	Ceramic	0.047	50V	CKDYF 473Z 50
C6	Ceramic	0.047	50V	CKDYF 473Z 50
C7	Electrolytic	10,000	50V	ACH-064
C8	Electrolytic	10,000	50V	ACH-064
C9	Electrolytic	10,000	50V	ACH-064
C10	Electrolytic	10,000	50V	ACH-064
C11	Ceramic	0.01	250V	ACG-001
C12	Ceramic	0.01	250V	ACG-001

Schematic Diagram for S-type

NOTE:
The indicated semiconductors are representative ones only. Other alternative semiconductors may be used and are listed in the parts list.



SWITCHES:

S_1 : FUNCTION
(1) PHONO 2 (2) PHONO 1 (3) TUNER (4) AUX

S_2 : INPUT CAPACITANCE SELECTOR(pF)
(1) 100 (2) 200 (3) 300 (4) 400

S_3 : DUPLICATE
(1) 1 ⟶ 2 (2) OFF (3) 2 ⟶ 1

S_4 : TAPE MONITOR
(1) 1 (2) OFF (3) 2

S_5 : MODE
(1) REV (2) STEREO (3) L+R (4) L (5) R

S_6 : MUTING
OFF ⟶ ON

S_7 : LOUDNESS
OFF ⟶ ON

S_8 : HIGH FILTER
OFF ⟶ 8kHz

S_9 : LOW FILTER
OFF ⟶ 15Hz

S_{10} : TONE
OFF ⟶ ON

S_{11} : SPEAKERS
(1) OFF (2) A (3) B (4) A+B

S_{12} : RELAY

S_{13} : POWER
OFF ⟶ ON

S_{14} : BASS TURN OVER
(1) 100Hz (2) 200Hz (3) 400Hz

S_{15} : TREBLE TURN OVER
(1) 2kHz (2) 4kHz (3) 8kHz

S_{16} : VOLTAGE SELECTOR
(1) 110V (2) 120V (3) 220V (4) 240V

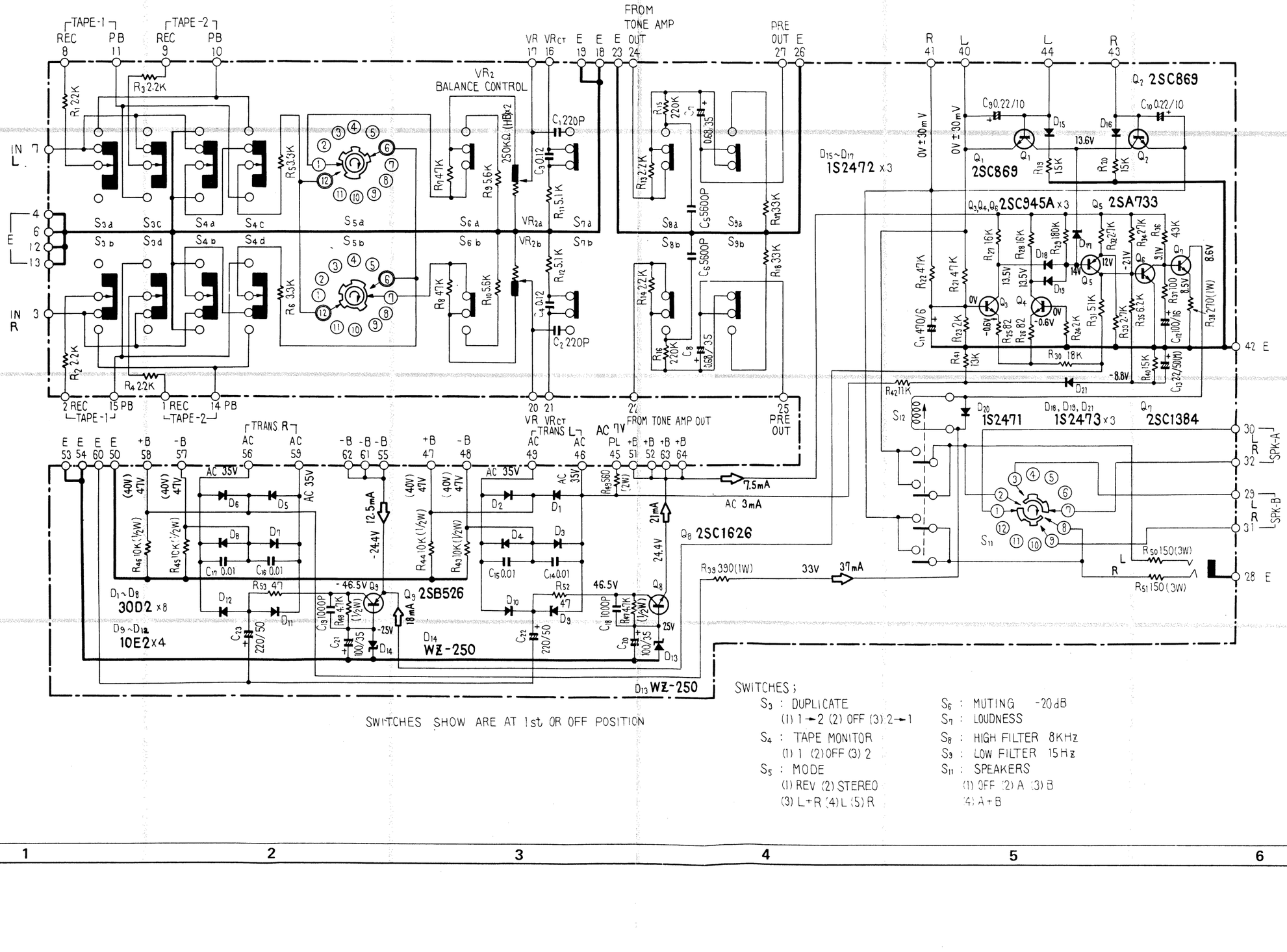
V : DC VOLTAGE AT NO INPUT SIGNAL
(V) : DC VOLTAGE AT 60W×2 OUTPUT
⇦mA : DC CURRENT AT NO INPUT SIGNAL
V : SIGNAL VOLTAGE AT 10W×2 (1kHz) OUTPUT (8Ω)

RESISTORS:
1Ω, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED
K : kΩ M : MΩ

CAPACITORS:
1μF UNLESS OTHERWISE NOTED P : pF

Switch Assembly (AWS-113)

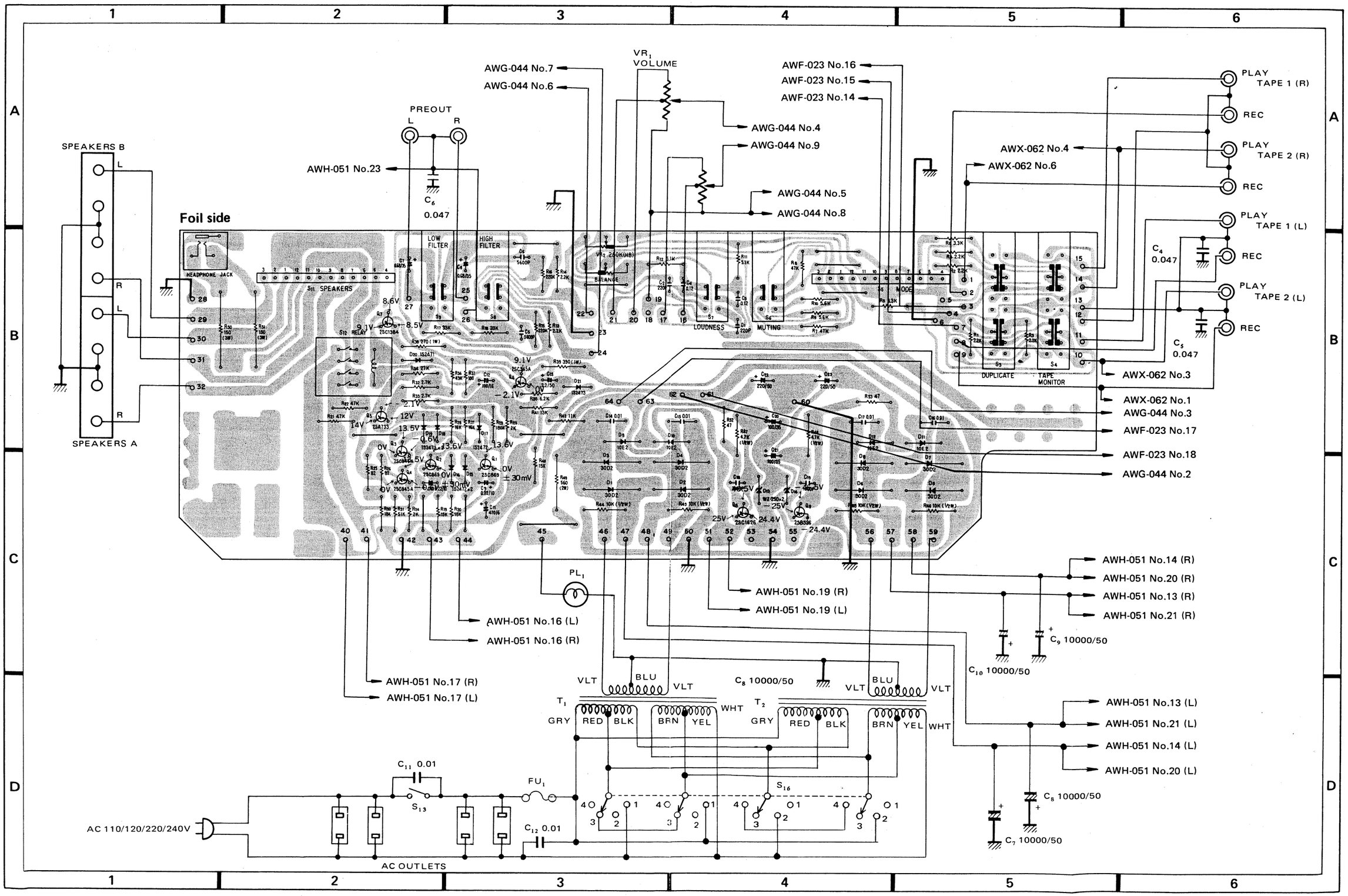
NOTE:
This assembly is applicable to the S-type.



SWITCHES SHOW ARE AT 1st OR OFF POSITION

SWITCHES;

- S_3 : DUPLICATE (1) 1→2 (2) OFF (3) 2→1
- S_4 : TAPE MONITOR (1) 1 (2) OFF (3) 2
- S_5 : MODE (1) REV (2) STEREO (3) L+R (4) L (5) R
- S_6 : MUTING -20dB
- S_7 : LOUDNESS
- S_8 : HIGH FILTER 8KHz
- S_9 : LOW FILTER 15Hz
- S_{11} : SPEAKERS (1) OFF (2) A (3) B (4) A+B


1
2
3
4
5
6
A
B
C
D
SPEAKERS B
SPEAKERS A
L
R
L
R
Foil side
PREOUT
L
R
AWH-051 No.23
C6 0.047
AWG-044 No.7
AWG-044 No.6
VR1 VOLUME
AWG-044 No.4
AWG-044 No.9
AWG-044 No.5
AWG-044 No.8
AWF-023 No.16
AWF-023 No.15
AWF-023 No.14
PLAY TAPE 1 (R)
REC
PLAY TAPE 2 (R)
REC
PLAY TAPE 1 (L)
REC
PLAY TAPE 2 (L)
REC
AWX-062 No.4
AWX-062 No.6
C4 0.047
C5 0.047
AWX-062 No.3
AWX-062 No.1
AWG-044 No.3
AWF-023 No.17
AWF-023 No.18
AWG-044 No.2
HEADPHONE JACK
S11 SPEAKERS
S12 RELAY
LOW FILTER
HIGH FILTER
BALANCE
LOUDNESS
MUTING
MODE
DUPLICATE
TAPE MONITOR
AWH-051 No.14 (R)
AWH-051 No.20 (R)
AWH-051 No.13 (R)
AWH-051 No.21 (R)
C9 10000/50
C10 10000/50
PL1
AWH-051 No.19 (R)
AWH-051 No.19 (L)
AWH-051 No.16 (L)
AWH-051 No.16 (R)
AWH-051 No.17 (R)
AWH-051 No.17 (L)
VLT
BLU
VLT
C8 10000/50
VLT
BLU
VLT
T1
GRY
RED
BLK
BRN
YEL
WHT
T2
GRY
RED
BLK
BRN
YEL
WHT
AWH-051 No.13 (L)
AWH-051 No.21 (L)
AWH-051 No.14 (L)
AWH-051 No.20 (L)
C11 0.01
FU1
S13
S16
C12 0.01
C8 10000/50
C7 10000/50
AC 110/120/220/240V
AC OUTLETS

Parts List of Switch Assembly (AWS-113, for S-type)

SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor	2SC869-D or C
Q2	Transistor	2SC869-D or C
Q3	Transistor	2SC945A-Q or R
Q4	Transistor	2SC945A-Q or R
Q5	Transistor	2SA733-Q or R (2SA823-Q or R)
Q6	Transistor	2SC945A-Q or R
Q7	Transistor	2SC1384-Q or R
Q8	Transistor	2SC1626-Q or Y (2SD381-M or L)
Q9	Transistor	2SB526-C or D (2SA816-O or Y)
D1	Diode	30D2 (GP-25D) (ERC01-02)
D2	Diode	30D2 (GP-25D) (ERC01-02)
D3	Diode	30D2 (GP-25D) (ERC01-02)
D4	Diode	30D2 (GP-25D) (ERC01-02)
D5	Diode	30D2 (GP-25D) (ERC01-02)
D6	Diode	30D2 (GP-25D) (ERC01-02)
D7	Diode	30D2 (GP-25D) (ERC01-02)
D8	Diode	30D2 (GP-25D) (ERC01-02)
D9	Diode	10E2 (SIB01-02) (1S1886)
D10	Diode	10E2 (SIB01-02) (1S1886)
D11	Diode	10E2 (SIB01-02) (1S1886)
D12	Diode	10E2 (SIB01-02) (1S1886)
D13	Zener diode	WZ-250
D14	Zener diode	WZ-250
D15	Diode	1S2472 (1S1554)
D16	Diode	1S2472 (1S1554)
D17	Diode	1S2472 (1S1554)
D18	Diode	1S2473 (1S1555)
D19	Diode	1S2473 (1S1555)
D20	Diode	1S2471
D21	Diode	1S2473 (1S1555)

SWITCHES

Symbol	Description	Part No.
S3	Lever switch (DUPLICATE)	ASK-113
S4	Lever switch (MONITOR)	ASK-113
S5	Rotary switch (MODE)	ASD-053
S6	Lever switch (MUTING)	ASK-110
S7	Lever switch (LOUDNESS)	ASK-110
S8	Lever switch (HIGH FILTER)	ASK-110
S9	Lever switch (LOW FILTER)	ASK-110
S11	Rotary switch (SPEAKERS)	ASD-054
S12	Relay	ASR-023

RESISTORS

Symbol	Description			Part No.
R1	Carbon film	2.2k		RD¼PS 222J
R2	Carbon film	2.2k		RD¼PS 222J
R3	Carbon film	2.2k		RD¼PS 222J
R4	Carbon film	2.2k		RD¼PS 222J
R5	Carbon film	3.3k		RD¼PS 332J
R6	Carbon film	3.3k		RD¼PS 332J
R7	Carbon film	47k		RD¼PS 473J
R8	Carbon film	47k		RD¼PS 473J
R9	Carbon film	5.6k		RD¼PS 562J
R10	Carbon film	5.6k		RD¼PS 562J
R11	Carbon film	5.1k		RD¼PS 512J
R12	Carbon film	5.1k		RD¼PS 512J
R13	Carbon film	2.2k		RD¼PS 222J
R14	Carbon film	2.2k		RD¼PS 222J
R15	Carbon film	220k		RD¼PS 224J
R16	Carbon film	220k		RD¼PS 224J
R17	Carbon film	33k		RD¼PS 333J
R18	Carbon film	33k		RD¼PS 333J
R19	Carbon film	15k		RD¼PS 153J
R20	Carbon film	15k		RD¼PS 153J
R21	Carbon film	47k		RD¼PS 473J
R22	Carbon film	47k		RD¼PS 473J
R23	Carbon film	2k		RD¼PS 202J
R24	Carbon film	2k		RD¼PS 202J
R25	Carbon film	82		RD¼PS 820J
R26	Carbon film	82		RD¼PS 820J
R27	Carbon film	16k		RD¼PS 163J
R28	Carbon film	16k		RD¼PS 163J
R29	Carbon film	180k		RD¼PS 184J
R30	Carbon film	18k		RD¼PS 183J
R31	Carbon film	51k		RD¼PS 513J
R32	Carbon film	2.7k		RD¼PS 272J
R33	Carbon film	2.7k		RD¼PS 272J
R34	Carbon film	27k		RD¼PS 273J
R35	Carbon film	6.2k		RD¼PS 622J
R36	Carbon film	43k		RD¼PS 433J
R37	Carbon film	100		RD¼PS 101J
R38	Metal oxide	270	1W	RS1P 271J
R39	Metal oxide	390	1W	RS1P 391J
R40	Carbon film	15k		RD¼PS 153J
R41	Carbon film	13k		RD¼PS 133J
R42	Carbon film	11k		RD¼PS 113J
R43	Carbon film	10k	½W	RD½PS 103J
R44	Carbon film	10k	½W	RD½PS 103J
R45	Carbon film	10k	½W	RD½PS 103J
R46	Carbon film	10k	½W	RD½PS 103J
R47	Carbon film	4.7k	½W	RD½PS 472J
R48	Carbon film	4.7k	½W	RD½PS 472J
R49	Metal oxide	560	2W	RS2P 561J
R50	Metal oxide	150	3W	RS3P 151J
R51	Metal oxide	150	3W	RS3P 151J
R52	Carbon film	47		RD¼PSF 470J
R53	Carbon film	47		RD¼PSF 470J
VR2	Variable resistor 250k-HB (BALANCE)			ACV-172

CAPACITORS

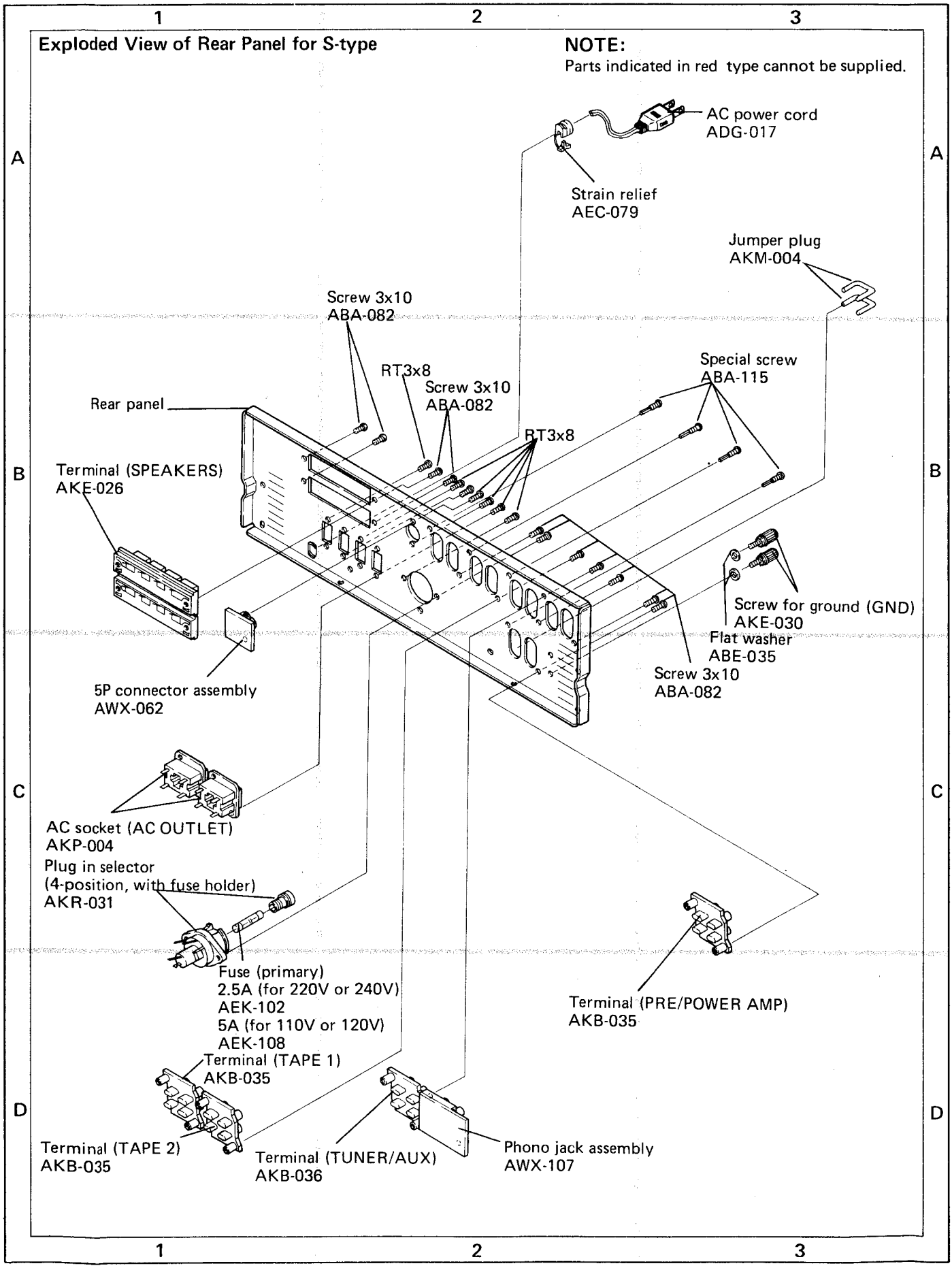
Symbol	Description			Part No.
C1	Ceramic	220p	50V	CCDSL 221K 50
C2	Ceramic	220p	50V	CCDSL 221K 50
C3	Mylar	0.12	50V	CQMA 124K 50
C4	Mylar	0.12	50V	CQMA 124K 50
C5	Mylar	0.0056	50V	CQMA 562J 50
C6	Mylar	0.0056	50V	CQMA 562J 50
C7	Electrolytic	0.68	35V	CSZA R68M 35
C8	Electrolytic	0.68	35V	CSZA R68M 35
C9	Electrolytic	0.22	10V	CSSA R22M 10
C10	Electrolytic	0.22	10V	CSSA R22M 10
C11	Electrolytic	470	6V	CEA 471P 6
C12	Electrolytic	100	16V	CEA 101P 16
C13	Electrolytic	2.2	50V	ACH-317
C14	Ceramic	0.01	150V	ACG-004
C15	Ceramic	0.01	150V	ACG-004
C16	Ceramic	0.01	150V	ACG-004
C17	Ceramic	0.01	150V	ACG-004
C18	Ceramic	0.001	50V	CKDYF 102Z 50
C19	Ceramic	0.001	50V	CKDYF 102Z 50
C20	Electrolytic	100	35V	CEA 101P 35
C21	Electrolytic	100	35V	CEA 101P 35
C22	Electrolytic	220	50V	CEA 221P 50
C23	Electrolytic	220	50V	CEA 221P 50

OTHERS

Symbol	Description	Part No.
	Phone jack (PHONES)	AKN-008
	Washer faced nut M9	ABN-024
	Special nut	ABN-027

Exploded View of Rear Panel for S-type

NOTE:
Parts indicated in red type cannot be supplied.



SA-8500II/HG

NOTE:
- *Capacitors: in μF unless otherwise noted p:pF*
- *Resistors: in Ω, ¼W unless otherwise noted k:kΩ, M:MΩ*

Miscellaneous Parts for HG-type

SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor	2SD587A/A/-R or Q
Q2	Transistor	2SD587A/A/-R or Q
Q3	Transistor	2SB617A/A/-R or Q
Q4	Transistor	2SB617A/A/-R or Q
Q5	Transistor	2SD587A/A/-R or Q
Q6	Transistor	2SD587A/A/-R or Q
Q7	Transistor	2SB617A/A/-R or Q
Q8	Transistor	2SB617A/A/-R or Q

CAPACITORS

Symbol	Description			Part No.
C2	Ceramic	0.047	50V	CKDYF 473Z 50
C3	Ceramic	0.047	50V	CKDYF 473Z 50
C4	Ceramic	0.047	50V	CKDYF 473Z 50
C5	Ceramic	0.047	50V	CKDYF 473Z 50
C6	Ceramic	0.047	50V	CKDYF 473Z 50
C7	Electrolytic	10,000	50V	ACH-064
C8	Electrolytic	10,000	50V	ACH-064
C9	Electrolytic	10,000	50V	ACH-064
C10	Electrolytic	10,000	50V	ACH-064

LAMP, FUSES

Symbol	Description	Part No.
PL1	Lamp with leads 8V, 50mA	AEL-081
FU1	Fuse 1.6A	AEK-405
FU2	Fuse 1.6A	AEK-405

SWITCHES

Symbol	Description	Part No.
S13	Lever switch (POWER)	ASK-127
S16	Plug in selector (2-position)	AKX-037

TRANSFORMERS

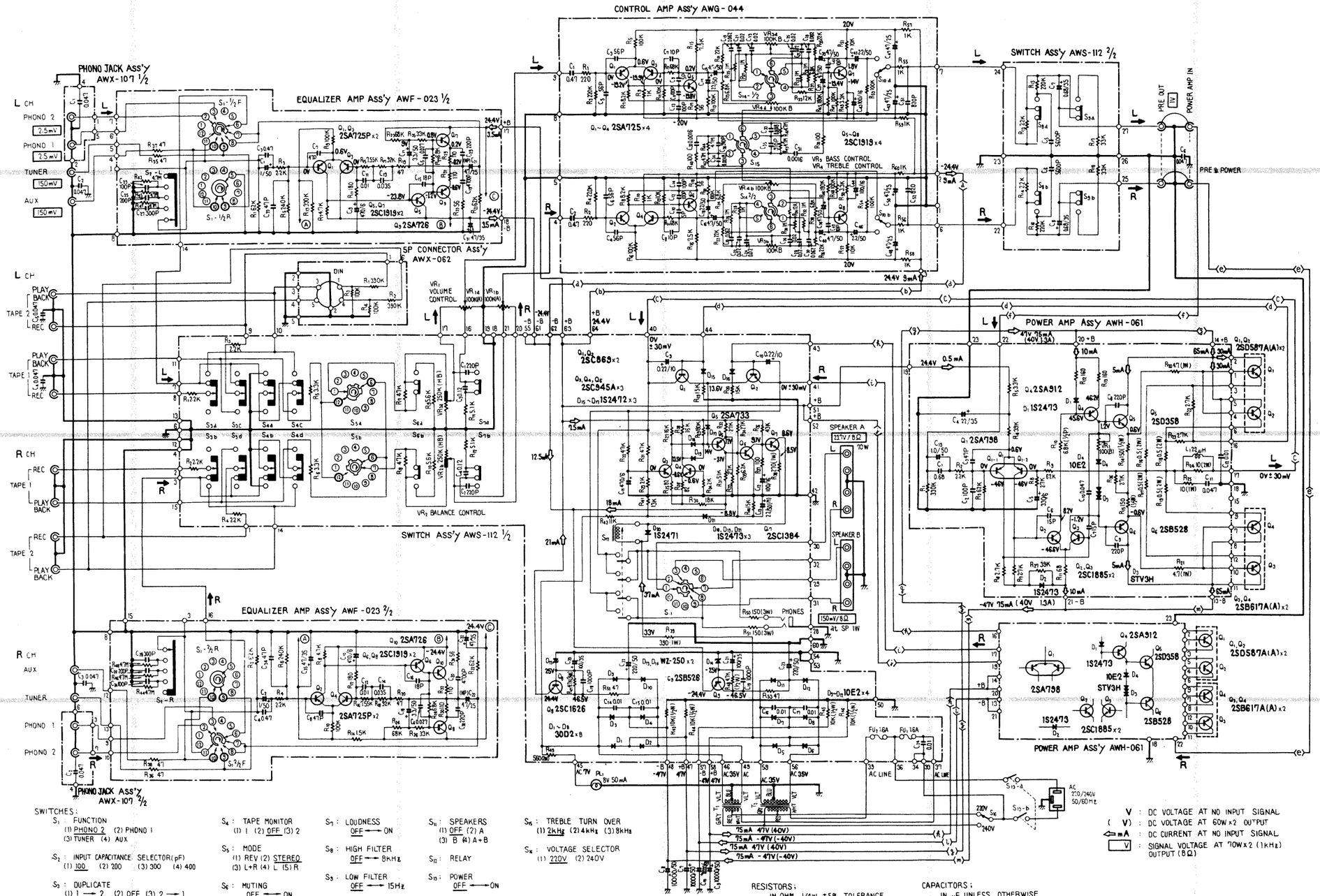
Symbol	Description	Part No.
T1	Power transformer (L)	ATT-370
T2	Power transformer (R)	ATT-371

RESISTOR

Symbol	Description	Part No.
VR1	Variable resistor 100k 32-step (VOLUME)	ACV-171

Schematic Diagram for HG-type

NOTE:
The indicated semiconductors are representative ones only. Other alternative semiconductors may be used and are listed in the parts list.



SWITCHES:

S_1 : FUNCTION
(1) PHONO 2 (2) PHONO 1
(3) TUNER (4) AUX

S_2 : INPUT CAPACITANCE SELECTOR(pF)
(1) 100 (2) 200 (3) 300 (4) 400

S_3 : DUPLICATE
(1) 1 ⟶ 2 (2) OFF (3) 2 ⟶ 1

S_4 : TAPE MONITOR
(1) 1 (2) OFF (3) 2

S_5 : MODE
(1) REV (2) STEREO
(3) L+R (4) L (5) R

S_6 : MUTING
OFF ⟶ ON

S_7 : LOUDNESS
OFF ⟶ ON

S_8 : HIGH FILTER
OFF ⟶ 8kHz

S_9 : LOW FILTER
OFF ⟶ 15Hz

S_{10} : TONE
OFF ⟶ ON

S_{11} : SPEAKERS
(1) OFF (2) A
(3) B (4) A+B

S_{12} : RELAY

S_{13} : POWER
OFF ⟶ ON

S_{14} : BASS TURN OVER
(1) 100Hz (2) 200Hz (3) 400Hz

S_{15} : TREBLE TURN OVER
(1) 2kHz (2) 4kHz (3) 8kHz

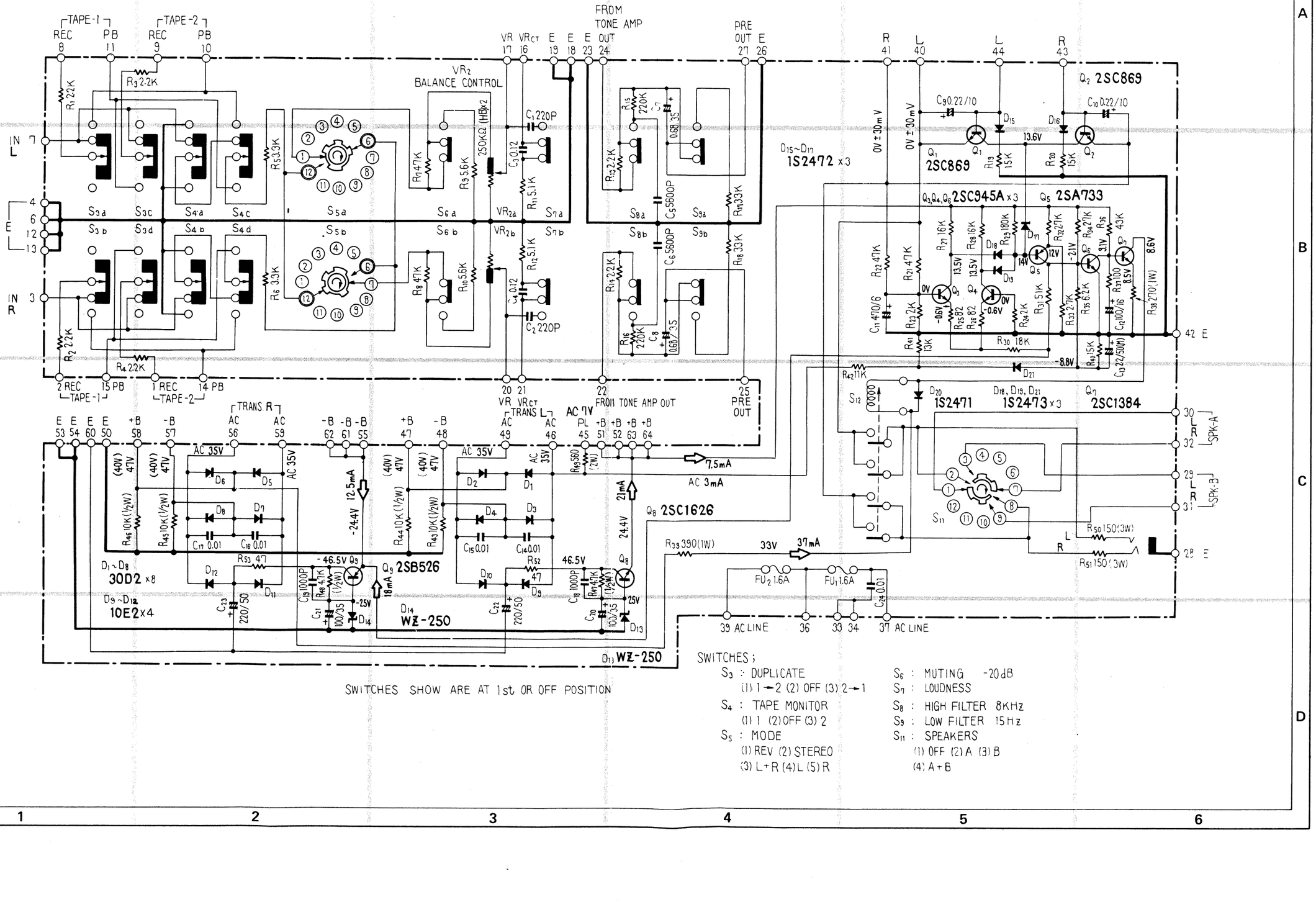
S_{16} : VOLTAGE SELECTOR
(1) 220V (2) 240V

RESISTORS:
IN OHM, 1/4W, ±5% TOLERANCE
UNLESS OTHERWISE NOTED
K : kΩ M : MΩ

CAPACITORS:
IN μF UNLESS OTHERWISE NOTED P : pF

Switch Assembly (AWS-112)

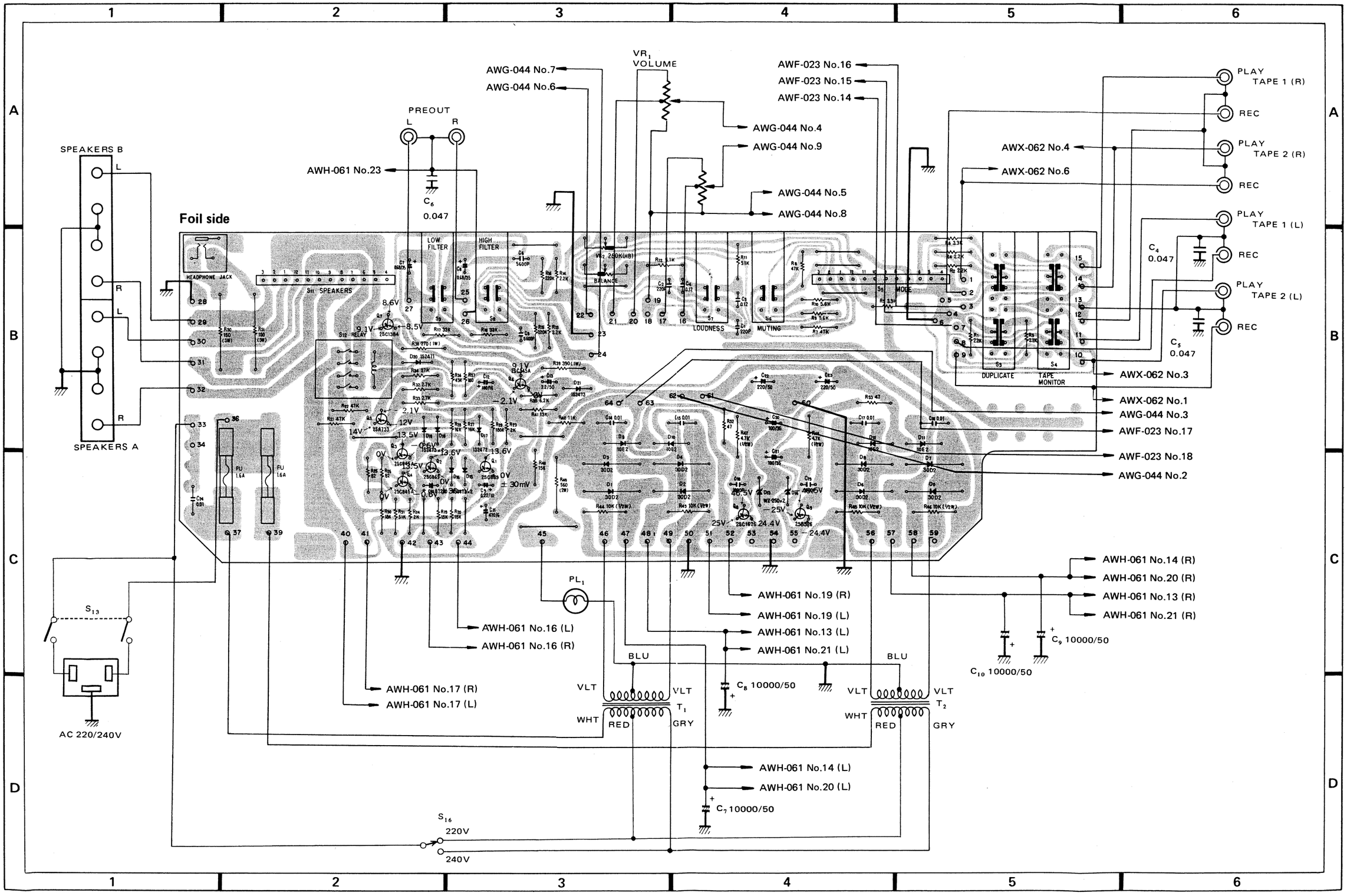
NOTE:
This assembly is applicable to the HG-type.



SWITCHES SHOW ARE AT 1st OR OFF POSITION

SWITCHES ;

- S_3 : DUPLICATE (1) 1→2 (2) OFF (3) 2→1
- S_4 : TAPE MONITOR (1) 1 (2) OFF (3) 2
- S_5 : MODE (1) REV (2) STEREO (3) L+R (4) L (5) R
- S_6 : MUTING -20dB
- S_7 : LOUDNESS
- S_8 : HIGH FILTER 8KHz
- S_9 : LOW FILTER 15Hz
- S_{11} : SPEAKERS (1) OFF (2) A (3) B (4) A+B


1
2
3
4
5
6
A
B
C
D
SPEAKERS B
L
R
SPEAKERS A
PREOUT
L
R
AWH-061 No.23
C6 0.047
VR1 VOLUME
AWG-044 No.7
AWG-044 No.6
AWG-044 No.4
AWG-044 No.9
AWG-044 No.5
AWG-044 No.8
AWF-023 No.16
AWF-023 No.15
AWF-023 No.14
Foil side
HEADPHONE JACK
S11 SPEAKERS
LOW FILTER
HIGH FILTER
BALANCE
LOUDNESS
MUTING
MODE
DUPLICATE
TAPE MONITOR
PLAY TAPE 1 (R)
REC
PLAY TAPE 2 (R)
REC
PLAY TAPE 1 (L)
REC
PLAY TAPE 2 (L)
REC
AWX-062 No.4
AWX-062 No.6
C4 0.047
C5 0.047
AWX-062 No.3
AWX-062 No.1
AWG-044 No.3
AWF-023 No.17
AWF-023 No.18
AWG-044 No.2
S12 RELAY
8.6V
9.1V
8.5V
2SC1384
2SA733
2SC845
2SC1826
2SC536
FU 1.6A
FU 1.6A
AWH-061 No.14 (R)
AWH-061 No.20 (R)
AWH-061 No.13 (R)
AWH-061 No.21 (R)
AWH-061 No.19 (R)
AWH-061 No.19 (L)
AWH-061 No.13 (L)
AWH-061 No.21 (L)
AWH-061 No.16 (L)
AWH-061 No.16 (R)
AWH-061 No.17 (R)
AWH-061 No.17 (L)
AWH-061 No.14 (L)
AWH-061 No.20 (L)
PL1
S13
AC 220/240V
S16
220V
240V
BLU
VLT
WHT
RED
GRY
T1
T2
C8 10000/50
C9 10000/50
C10 10000/50
C7 10000/50

Parts List of Switch Assembly (AWS-112, for HG-type)

SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor	2SC869-D or C
Q2	Transistor	2SC869-D or C
Q3	Transistor	2SC945A-Q or R
Q4	Transistor	2SC945A-Q or R
Q5	Transistor	2SA733-Q or R (2SA823-Q or R)
Q6	Transistor	2SC945A-Q or R
Q7	Transistor	2SC1384-Q or R
Q8	Transistor	2SC1626-Q or Y (2SD381-M or L)
Q9	Transistor	2SB526-C or D (2SA816-O or Y)
D1	Diode	30D2 (GP-25D) (ERC01-02)
D2	Diode	30D2 (GP-25D) (ERC01-02)
D3	Diode	30D2 (GP-25D) (ERC01-02)
D4	Diode	30D2 (GP-25D) (ERC01-02)
D5	Diode	30D2 (GP-25D) (ERC01-02)
D6	Diode	30D2 (GP-25D) (ERC01-02)
D7	Diode	30D2 (GP-25D) (ERC01-02)
D8	Diode	30D2 (GP-25D) (ERC01-02)
D9	Diode	10E2 (SIB01-02) (1S1886)
D10	Diode	10E2 (SIB01-02) (1S1886)
D11	Diode	10E2 (SIB01-02) (1S1886)
D12	Diode	10E2 (SIB01-02) (1S1886)
D13	Zener diode	WZ-250
D14	Zener diode	WZ-250
D15	Diode	1S2472 (1S1554)
D16	Diode	1S2472 (1S1554)
D17	Diode	1S2472 (1S1554)
D18	Diode	1S2473 (1S1555)
D19	Diode	1S2473 (1S1555)
D20	Diode	1S2471
D21	Diode	1S2473 (1S1555)

SWITCHES

Symbol	Description	Part No.
S3	Lever switch (DUPLICATE)	ASK-113
S4	Lever switch (MONITOR)	ASK-113
S5	Rotary switch (MODE)	ASD-053
S6	Lever switch (MUTING)	ASK-110
S7	Lever switch (LOUDNESS)	ASK-110
S8	Lever switch (HIGH FILTER)	ASK-110
S9	Lever switch (LOW FILTER)	ASK-110
S11	Rotary switch (SPEAKERS)	ASD-054
S12	Relay	ASR-023

RESISTORS

Symbol	Description			Part No.
R1	Carbon film	2.2k		RD¼PS 222J
R2	Carbon film	2.2k		RD¼PS 222J
R3	Carbon film	2.2k		RD¼PS 222J
R4	Carbon film	2.2k		RD¼PS 222J
R5	Carbon film	3.3k		RD¼PS 332J
R6	Carbon film	3.3k		RD¼PS 332J
R7	Carbon film	47k		RD¼PS 473J
R8	Carbon film	47k		RD¼PS 473J
R9	Carbon film	5.6k		RD¼PS 562J
R10	Carbon film	5.6k		RD¼PS 562J
R11	Carbon film	5.1k		RD¼PS 512J
R12	Carbon film	5.1k		RD¼PS 512J
R13	Carbon film	2.2k		RD¼PS 222J
R14	Carbon film	2.2k		RD¼PS 222J
R15	Carbon film	220k		RD¼PS 224J
R16	Carbon film	220k		RD¼PS 224J
R17	Carbon film	33k		RD¼PS 333J
R18	Carbon film	33k		RD¼PS 333J
R19	Carbon film	15k		RD¼PS 153J
R20	Carbon film	15k		RD¼PS 153J
R21	Carbon film	47k		RD¼PS 473J
R22	Carbon film	47k		RD¼PS 473J
R23	Carbon film	2k		RD¼PS 202J
R24	Carbon film	2k		RD¼PS 202J
R25	Carbon film	82		RD¼PS 820J
R26	Carbon film	82		RD¼PS 820J
R27	Carbon film	16k		RD¼PS 163J
R28	Carbon film	16k		RD¼PS 163J
R29	Carbon film	180k		RD¼PS 184J
R30	Carbon film	18k		RD¼PS 183J
R31	Carbon film	51k		RD¼PS 513J
R32	Carbon film	2.7k		RD¼PS 272J
R33	Carbon film	2.7k		RD¼PS 272J
R34	Carbon film	27k		RD¼PS 273J
R35	Carbon film	6.2k		RD¼PS 622J
R36	Carbon film	43k		RD¼PS 433J
R37	Carbon film	100		RD¼PS 101J
R38	Metal oxide	270	1W	RS1P 271J
R39	Metal oxide	390	1W	RS1P 391J
R40	Carbon film	15k		RD¼PS 153J
R41	Carbon film	13k		RD¼PS 133J
R42	Carbon film	11k		RD¼PS 113J
R43	Carbon film	10k	½W	RD½PS 103J
R44	Carbon film	10k	½W	RD½PS 103J
R45	Carbon film	10k	½W	RD½PS 103J
R46	Carbon film	10k	½W	RD½PS 103J
R47	Carbon film	4.7k	½W	RD½PS 472J
R48	Carbon film	4.7k	½W	RD½PS 472J
R49	Metal oxide	560	2W	RS2P 561J
R50	Metal oxide	150	3W	RS3P 151J
R51	Metal oxide	150	3W	RS3P 151J
R52	Carbon film	47		RD¼PSF 470J
R53	Carbon film	47		RD¼PSF 470J
VR2	Variable resistor 250k-HB (BALANCE)			ACV-172

CAPACITORS

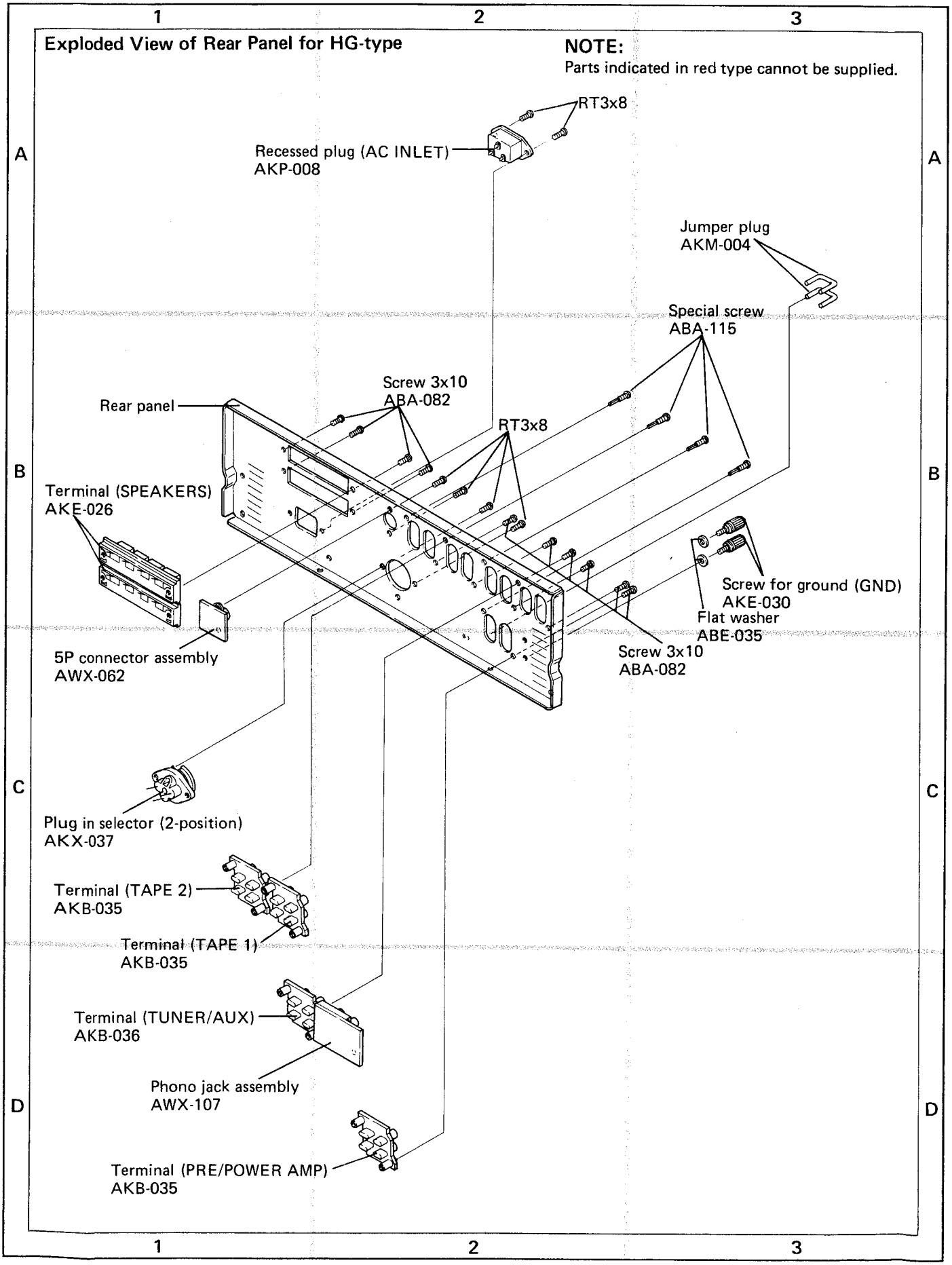
Symbol	Description			Part No.
C1	Ceramic	220p	50V	CCDSL 221K 50
C2	Ceramic	220p	50V	CCDSL 221K 50
C3	Mylar	0.12	50V	CQMA 124K 50
C4	Mylar	0.12	50V	CQMA 124K 50
C5	Mylar	0.0056	50V	CQMA 562J 50
C6	Mylar	0.0056	50V	CQMA 562J 50
C7	Electrolytic	0.68	35V	CSZA R68M 35
C8	Electrolytic	0.68	35V	CSZA R68M 35
C9	Electrolytic	0.22	10V	CSSA R22M 10
C10	Electrolytic	0.22	10V	CSSA R22M 10
C11	Electrolytic	470	6V	CEA 471P 6
C12	Electrolytic	100	16V	CEA 101P 16
C13	Electrolytic	2.2	50V	ACH-317
C14	Ceramic	0.01	150V	ACG-004
C15	Ceramic	0.01	150V	ACG-004
C16	Ceramic	0.01	150V	ACG-004
C17	Ceramic	0.01	150V	ACG-004
C18	Ceramic	0.001	50V	CKDYF 102Z 50
C19	Ceramic	0.001	50V	CKDYF 102Z 50
C20	Electrolytic	100	35V	CEA 101P 35
C21	Electrolytic	100	35V	CEA 101P 35
C22	Electrolytic	220	50V	CEA 221P 50
C23	Electrolytic	220	50V	CEA 221P 50
C24	Ceramic	0.01	250V	ACG-001

OTHERS

Symbol	Description	Part No.
	Phone jack (PHONES)	AKN-008
	Fuse clip	AKR-010
	Washer faced nut M9	ABN-024
	Special nut	ABN-027

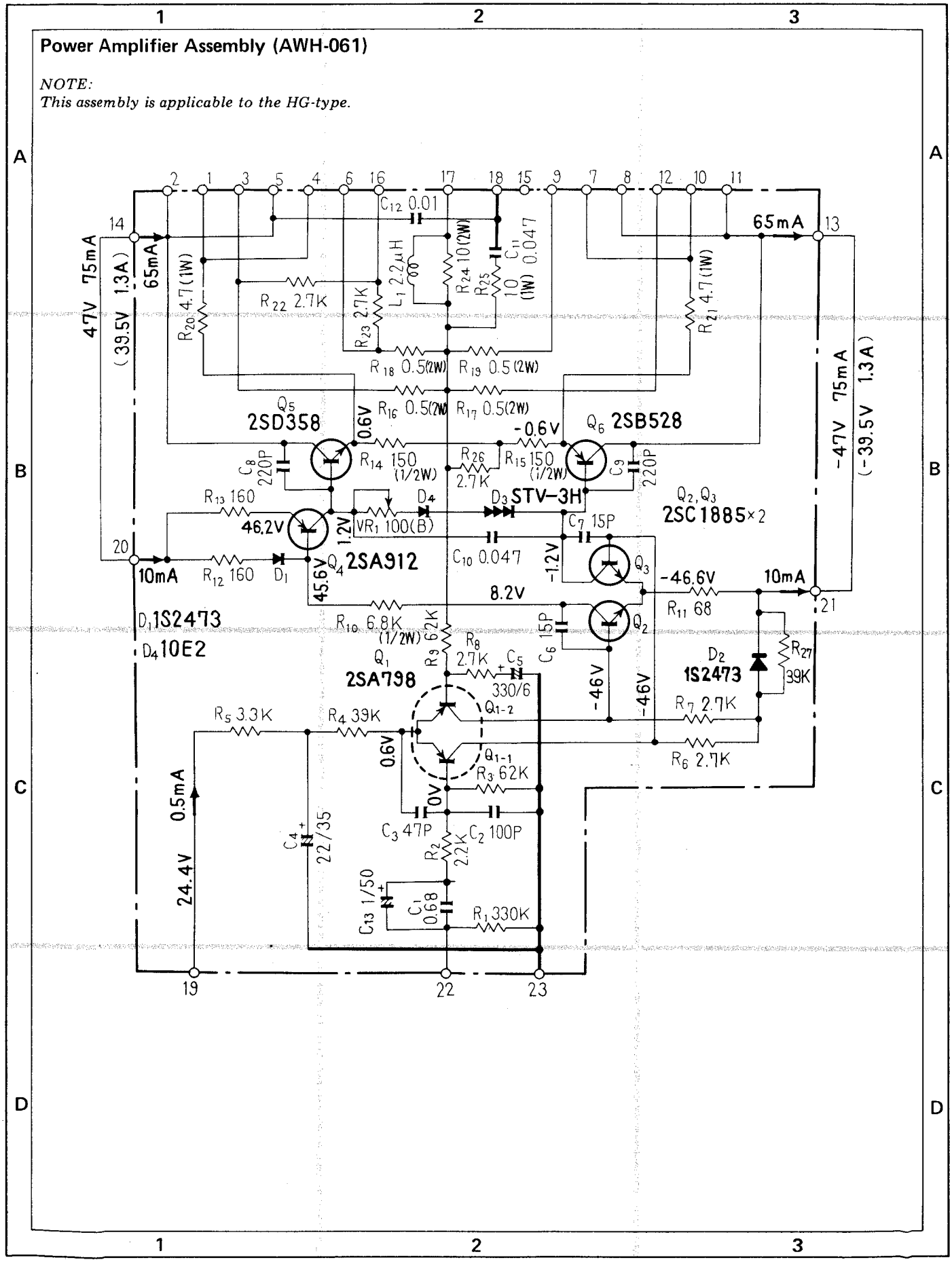
Exploded View of Rear Panel for HG-type

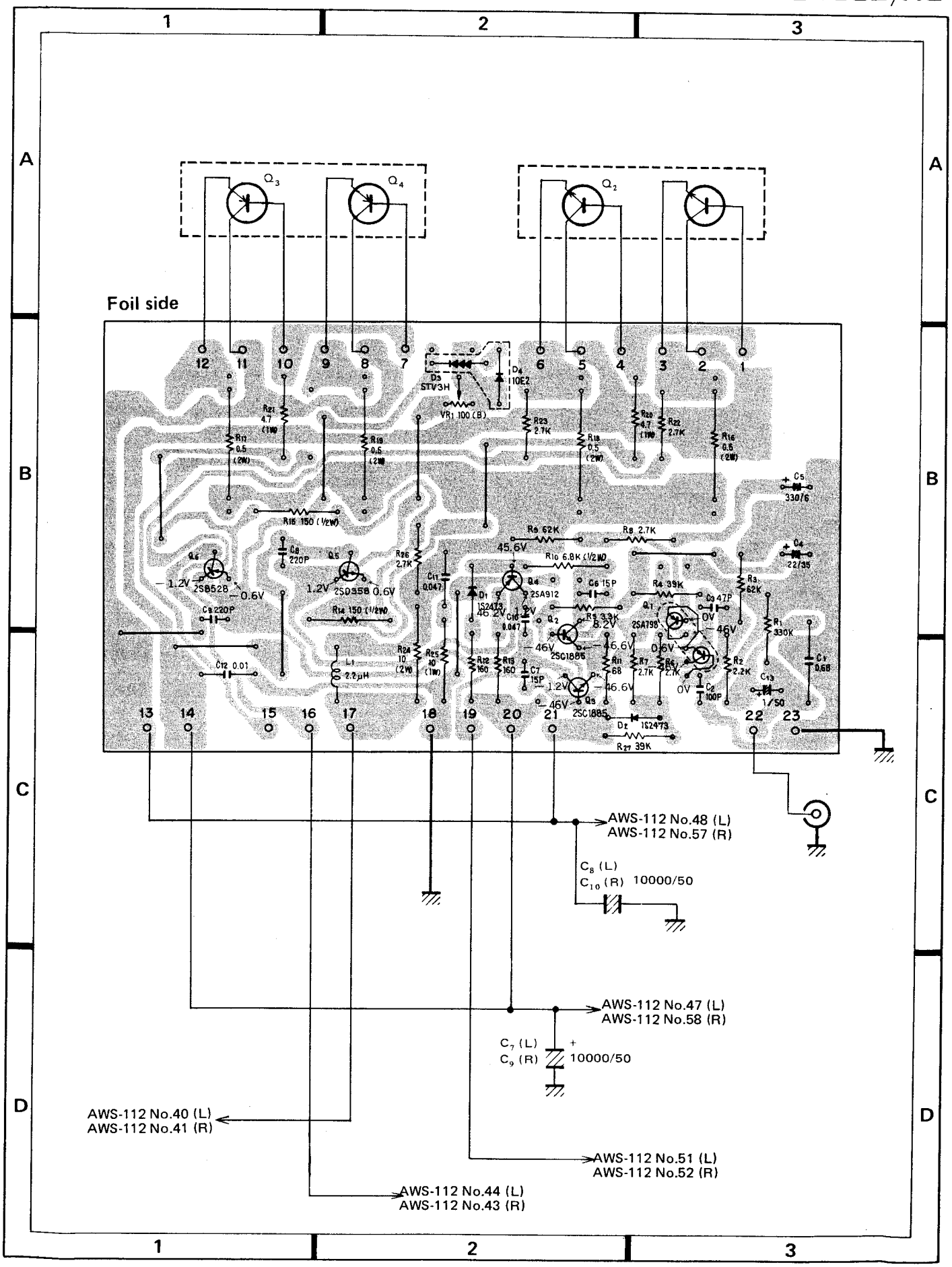
NOTE:
Parts indicated in red type cannot be supplied.



Power Amplifier Assembly (AWH-061)

NOTE:
This assembly is applicable to the HG-type.




1
2
3
A
B
C
D
Foil side
Q3
Q4
Q2
12 11 10 9 8 7 6 5 4 3 2 1
13 14 15 16 17 18 19 20 21 22 23
D3 STV3H
D4 10E2
VR1 100 (B)
R21 4.7 (1W)
R11 0.5 (2W)
R19 0.5 (2W)
R23 2.7K
R18 0.5 (2W)
R29 4.7 (1W)
R22 2.7K
R16 0.5 (2W)
C5 330/6
R15 150 (1/2W)
R9 62K
R8 2.7K
C4 22/35
R10 6.8K (1/2W)
45.6V
Q6 2SB528
Q5 2SD358
C8 220P
R26 2.7K
C11 0.047
R14 150 (1/2W)
D1 1S2473
Q4 2SA912
C6 15P
R4 39K
C3 47P
R3 62K
Q1 2SA798
R5 3.3K
Q2 2SC1685
C10 0.047
R1 330K
C12 0.01
L1 2.2μH
R24 10 (2W)
R25 10 (1W)
R12 160
R13 160
C7 15P
R11 68
R7 2.7K
R6 2.7K
R2 2.2K
C2 100P
C13 1/50
C1 0.68
Q3 2SC1685
D2 1S2473
R27 39K
AWS-112 No.48 (L)
AWS-112 No.57 (R)
C8 (L)
C10 (R) 10000/50
AWS-112 No.47 (L)
AWS-112 No.58 (R)
C7 (L)
C9 (R)
10000/50
AWS-112 No.40 (L)
AWS-112 No.41 (R)
AWS-112 No.51 (L)
AWS-112 No.52 (R)
AWS-112 No.44 (L)
AWS-112 No.43 (R)

Parts List of Power Amplifier Assembly (AWH-061, for HG-type)

SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor	2SA798-G or F
Q2	Transistor	2SC1885-S or R (2SC1903-V or B)
Q3	Transistor	2SC1885-S or R (2SC1903-V or B)
Q4	Transistor	2SA912-R or S (2SA898-B or V)
Q5	Transistor	2SD358-D or C
Q6	Transistor	2SB528-D or C
D1	Diode	1S2473 (1S1555)
D2	Diode	1S2473 (1S1555)
D3	Varistor	STV-3H
D4	Diode	10E2 (SIB01-01) (1S1885)

CAPACITORS

Symbol	Description			Part No.
C1	Metallized mylar	0.68	100V	ACE-010
C2	Ceramic	100p	50V	CCDSL 101K 50
C3	Ceramic	47p	50V	CCDSL 470K 50
C4	Electrolytic	22	35V	CEA 220P 35
C5	Electrolytic	330	6V	CEA 331P 6
C6	Ceramic	15p	500V	CCDSL 150K 500
C7	Ceramic	15p	500V	CCDSL 150K 500
C8	Ceramic	220p	500V	CCDSL 221K 500
C9	Ceramic	220p	500V	CCDSL 221K 500
C10	Ceramic	0.047	50V	CKDYF 473Z 50
C11	Ceramic	0.047	150V	ACG-009
C12	Ceramic	0.01	150V	ACG-004
C13	Electrolytic	1	50V	CEANL 010P 50

OTHER

Symbol	Description	Part No.
L1	AF choke coil 2.2μH	T63-009

RESISTORS

Symbol	Description			Part No.
VR1	Semi-fixed 100-B			ACP-019
R1	Carbon film	330k		RD¼PS 334J
R2	Carbon film	2.2k		RD¼PS 222J
R3	Carbon film	62k		RD¼PS 623J
R4	Carbon film	39k		RD¼PS 393J
R5	Carbon film	3.3k		RD¼PS 332J
R6	Carbon film	2.7k		RD¼PS 272J
R7	Carbon film	2.7k		RD¼PS 272J
R8	Carbon film	2.7k		RD¼PS 272J
R9	Carbon film	62k		RD¼PS 623J
R10	Carbon film	6.8k	½W	RD½PS 682J
R11	Carbon film	68		RD¼PSF 680J
R12	Carbon film	160		RD¼PS 161J
R13	Carbon film	160		RD¼PS 161J
R14	Carbon film	150	½W	RD½PSF 151J
R15	Carbon film	150	½W	RD½PSF 151J
R16	Metal film	0.5	2W	RN2H 0R5K
R17	Metal film	0.5	2W	RN2H 0R5K
R18	Metal film	0.5	2W	RN2H 0R5K
R19	Metal film	0.5	2W	RN2H 0R5K
R20	Metal film	4.7	1W	RN1H 4R7K
R21	Metal film	4.7	1W	RN1H 4R7K
R22	Carbon film	2.7k		RD¼PS 272J
R23	Carbon film	2.7k		RD¼PS 272J
R24	Metal oxide	10	2W	RS2P 100J
R25	Metal oxide	10	1W	RS1P 100J
R26	Carbon film	2.7k		RD¼PS 272J
R27	Carbon film	39k		RD¼PS 393J

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153 Japan
U.S. PIONEER ELECTRONICS CORPORATION 75 Oxford Drive, Moonachie, New Jersey 07074, U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V. Luithagen-Haven 9, 2030 Antwerp, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia

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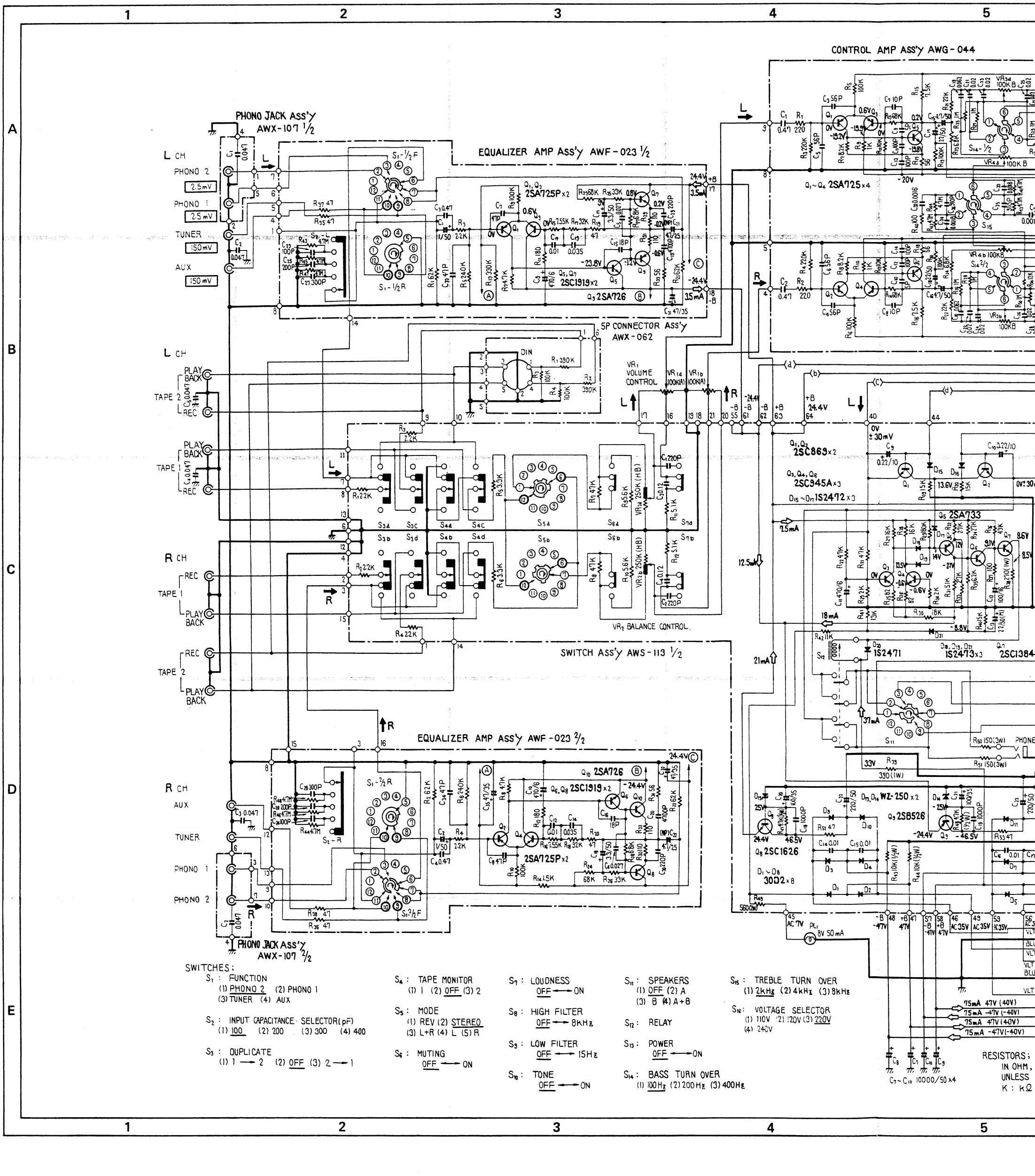
STEREO AMPLIFIER

SA-8500II S


CONTROL AMP ASS'Y AWG-044
PHONO JACK ASS'Y AWX-107 1/2
EQUALIZER AMP ASS'Y AWF-023 1/2
SP CONNECTOR ASS'Y AWX-062
SWITCH ASS'Y AWS-113 1/2
EQUALIZER AMP ASS'Y AWF-023 2/2
PHONO JACK ASS'Y AWX-107 2/2
L CH
R CH
PHONO 2
PHONO 1
TUNER
AUX
TAPE 2 PLAY BACK
TAPE 2 REC
TAPE 1 PLAY BACK
TAPE 1 REC
2.5mV
150mV
DIN
VR1 VOLUME CONTROL
VR2 BALANCE CONTROL
Q1~Q4 2SA725×4
Q1,Q3 2SA725P×2
Q5,Q7 2SC1919×2
Q9 2SA726
Q10 2SA726
2SA725P×2
Q1,Q2 2SC869×2
Q3,Q4,Q6 2SC945A×3
D15~D17 1S2472×3
Q5 2SA733
D20 1S2471
D18,D19,D21 1S2473×3
Q7 2SC1384
Q6,Q8 2SC1919×2
Q9 2SB526
Q8 2SC1626
D1~D8 30D2×8
D13,D14 WZ-250×2
PL1 8V 50mA
C7~C10 10000/50×4
SWITCHES:
S1 : FUNCTION (1) PHONO 2 (2) PHONO 1 (3) TUNER (4) AUX
S2 : INPUT CAPACITANCE SELECTOR(pF) (1) 100 (2) 200 (3) 300 (4) 400
S3 : DUPLICATE (1) 1 ⟶ 2 (2) OFF (3) 2 ⟶ 1
S4 : TAPE MONITOR (1) 1 (2) OFF (3) 2
S5 : MODE (1) REV (2) STEREO (3) L+R (4) L (5) R
S6 : MUTING OFF ⟶ ON
S7 : LOUDNESS OFF ⟶ ON
S8 : HIGH FILTER OFF ⟶ 8KHz
S9 : LOW FILTER OFF ⟶ 15Hz
S10 : TONE OFF ⟶ ON
S11 : SPEAKERS (1) OFF (2) A (3) B (4) A+B
S12 : RELAY
S13 : POWER OFF ⟶ ON
S14 : BASS TURN OVER (1) 100Hz (2) 200Hz (3) 400Hz
S15 : TREBLE TURN OVER (1) 2kHz (2) 4kHz (3) 8kHz
S16 : VOLTAGE SELECTOR (1) 110V (2) 120V (3) 220V (4) 240V
75mA 47V (40V)
75mA -47V (-40V)
RESISTORS; IN OHM, UNLESS K : kΩ

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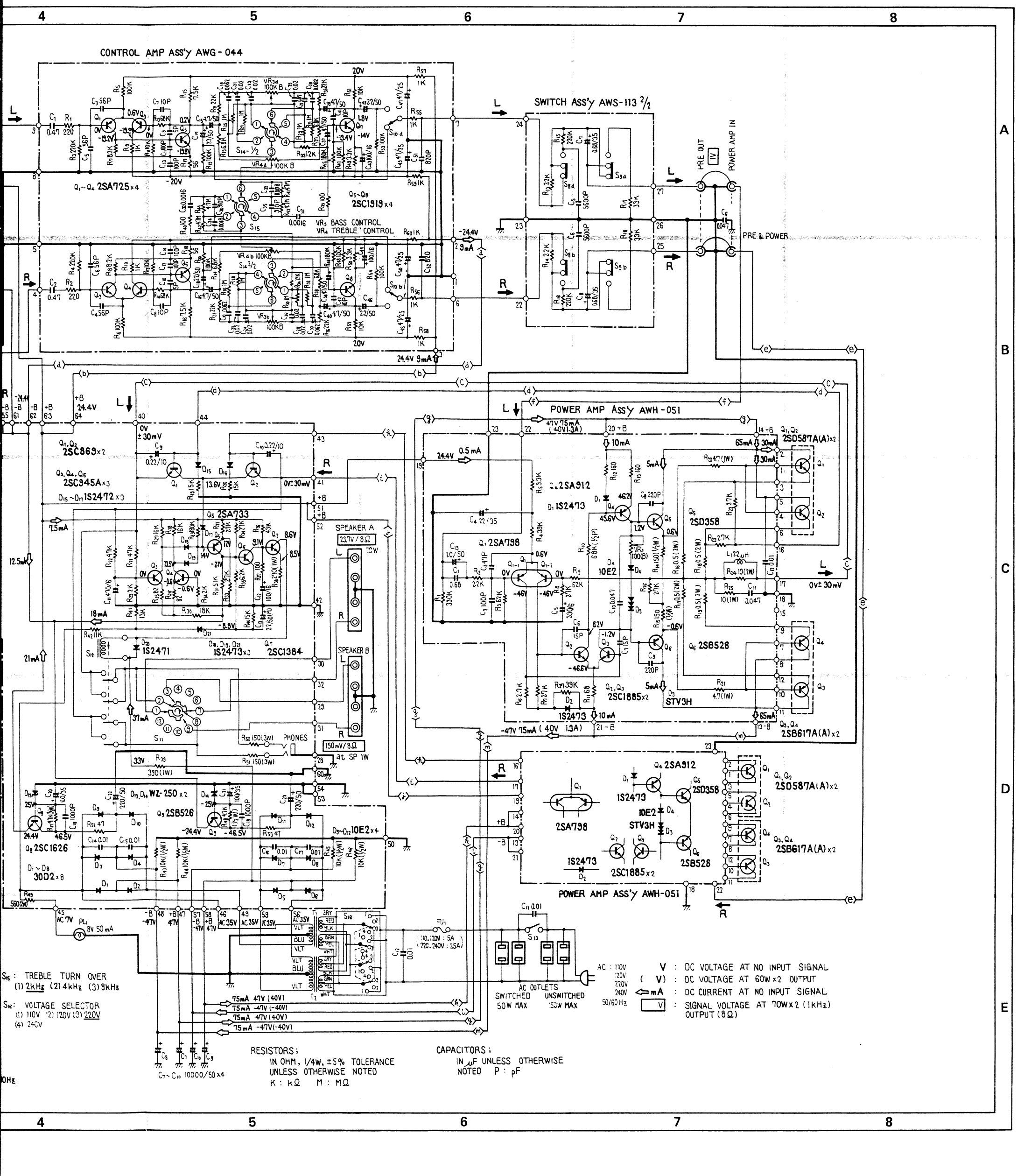
CONTROL AMP ASS'y AWG-044
SWITCH ASS'y AWS-113 2/2
POWER AMP ASS'y AWH-051
Q1~Q4 2SA725×4
Q5~Q8 2SC1913×4
VR3 BASS CONTROL
VR4 TREBLE CONTROL
-24.4V 29mA
24.4V 9mA
PRE OUT
POWER AMP IN
PRE & POWER
Q1,Q2 2SC869×2
Q3,Q4,Q6 2SC945A×3
D15~D17 1S2472×3
Q5 2SA733
SPEAKER A
23.7V/8Ω 70W
SPEAKER B
150mV/8Ω at SP 1W
PHONES
D18,D19,D21 1S2473×3
Q7 2SC1384
D20 1S2471
Q9 2SB528
Q8 2SC1626
D1~D8 30D2×8
D9~D12 10E2×4
D13,D14 WZ-250×2
PL1 8V 50mA
FU1 (110,120V : 5A) (220,240V : 2.5A)
S13
AC OUTLETS
SWITCHED 50W MAX
UNSWITCHED 150W MAX
Q1,Q2 2SD587A(A)×2
Q5 2SD358
Q6 2SB528
Q2,Q3 2SC1885×2
D3 STV3H
Q3,Q4 2SB617A(A)×2
Q4 2SA912
D1 1S2473
D4 10E2
Q1 2SA798
D2 1S2473
-47V 75mA (40V 1.3A)
65mA 30mA
10mA
0.5mA
S15 : TREBLE TURN OVER (1) 2kHz (2) 4kHz (3) 8kHz
S16 : VOLTAGE SELECTOR (1) 110V (2) 120V (3) 220V (4) 240V
V : DC VOLTAGE AT NO INPUT SIGNAL
(V) : DC VOLTAGE AT 60W×2 OUTPUT
⇦mA : DC CURRENT AT NO INPUT SIGNAL
V : SIGNAL VOLTAGE AT 70W×2 (1kHz) OUTPUT (8Ω)
RESISTORS; IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K : kΩ M : MΩ
CAPACITORS; IN μF UNLESS OTHERWISE NOTED P : pF
C7~C10 10000/50×4

STEREO AMPLIFIER

SA-8500II HG

CONTROL AMP ASS'y AWG-044
PHONO JACK ASS'y AWX-107 1/2
EQUALIZER AMP ASS'y AWF-023 1/2
5P CONNECTOR ASS'y AWX-062
SWITCH ASS'y AWS-112 1/2
EQUALIZER AMP ASS'y AWF-023 2/2
PHONO JACK ASS'y AWX-107 2/2
L CH
R CH
PHONO 2
PHONO 1
TUNER
AUX
TAPE 2
TAPE 1
PLAY BACK
REC
VR1 VOLUME CONTROL
VR1 BALANCE CONTROL
Q1~Q4 2SA725×4
Q1,Q3 2SA725P×2
Q5,Q7 2SC1919×2
Q9 2SA726
Q1,Q2 2SC869×2
Q3,Q4,Q6 2SC945A×3
D15~D17 1S2472×3
Q5 2SA733
D18,D19,D21 1S2473×3
D20 1S2471
D13,D14 WZ-250×2
Q8 2SC1626
Q9 2SB526
D1~D8 30D2×8
Q10 2SA726
Q6,Q8 2SC1919×2
Q7 2SA725P×2
8V 50mA
SWITCHES:
S1 : FUNCTION (1) PHONO 2 (2) PHONO 1 (3) TUNER (4) AUX
S2 : INPUT CAPACITANCE SELECTOR(pF) (1) 100 (2) 200 (3) 300 (4) 400
S3 : DUPLICATE (1) 1 ⟶ 2 (2) OFF (3) 2 ⟶ 1
S4 : TAPE MONITOR (1) 1 (2) OFF (3) 2
S5 : MODE (1) REV (2) STEREO (3) L+R (4) L (5) R
S6 : MUTING OFF ⟶ ON
S7 : LOUDNESS OFF ⟶ ON
S8 : HIGH FILTER OFF ⟶ 8KHz
S9 : LOW FILTER OFF ⟶ 15Hz
S10 : TONE OFF ⟶ ON
S11 : SPEAKERS (1) OFF (2) A (3) B (4) A+B
S12 : RELAY
S13 : POWER OFF ⟶ ON
S14 : BASS TURN OVER (1) 100Hz (2) 200Hz (3) 400Hz
S15 : TREBLE TURN OVER (1) 2kHz (2) 4kHz (3) 8kHz
S16 : VOLTAGE SELECTOR (1) 220V (2) 240V

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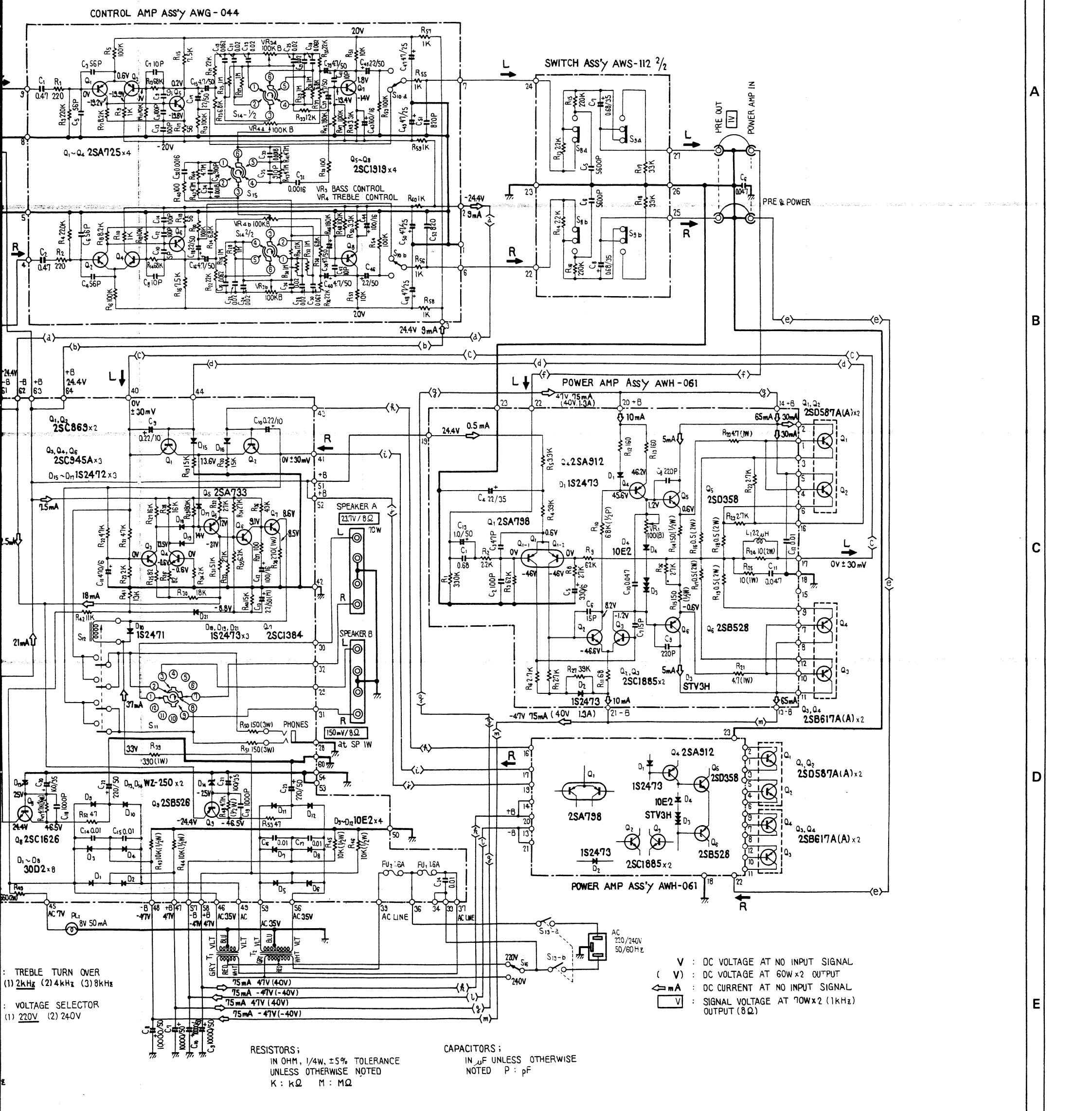
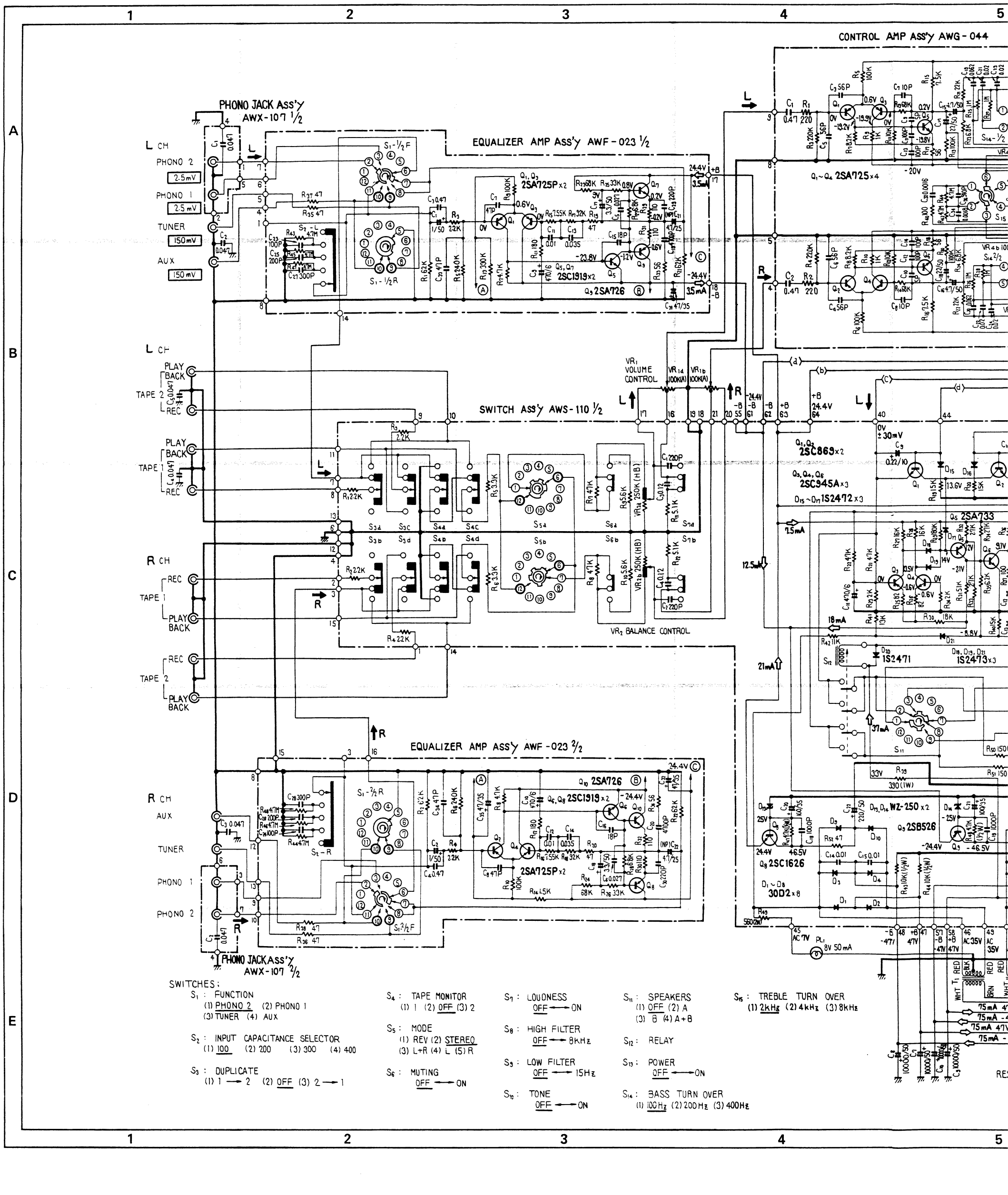

CONTROL AMP ASS'y AWG-044
SWITCH ASS'y AWS-112 2/2
POWER AMP ASS'y AWH-061
Q1~Q4 2SA725×4
Q5~Q8 2SC1919×4
VR3 BASS CONTROL
VR4 TREBLE CONTROL
Q1,Q2 2SC869×2
Q3,Q4,Q6 2SC945A×3
D15~D17 1S2472×3
Q5 2SA733
Q7 2SC1384
D18 1S2471
D19,D21 1S2473×3
SPEAKER A
SPEAKER B
23.7V/8Ω
70W
PHONES
150mV/8Ω at SP 1W
PRE OUT
POWER AMP IN
PRE & POWER
Q4 2SA912
D1 1S2473
Q5 2SD358
D4 10E2
Q1 2SA798
Q6 2SB528
Q2,Q3 2SC1885×2
D3 STV3H
Q1,Q2 2SD587A(A)×2
Q3,Q4 2SB617A(A)×2
D5~D12 10E2×4
Q8 2SC1626
D1~D8 30D2×8
D13,D14 WZ-250×2
Q9 2SB526
PL1 8V 50mA
AC 220/240V 50/60Hz
220V
240V
: TREBLE TURN OVER
(1) 2kHz (2) 4kHz (3) 8kHz
: VOLTAGE SELECTOR
(1) 220V (2) 240V
V : DC VOLTAGE AT NO INPUT SIGNAL
(V) : DC VOLTAGE AT 60W×2 OUTPUT
⇦mA : DC CURRENT AT NO INPUT SIGNAL
V : SIGNAL VOLTAGE AT 70W×2 (1kHz) OUTPUT (8Ω)
RESISTORS;
IN OHM, 1/4W, ±5% TOLERANCE
UNLESS OTHERWISE NOTED
K : kΩ M : MΩ
CAPACITORS;
IN μF UNLESS OTHERWISE NOTED P : pF

STEREO AMPLIFIER

SA-8500II KC


CONTROL AMP ASS'Y AWG-044
PHONO JACK ASS'Y AWX-107 1/2
EQUALIZER AMP ASS'Y AWF-023 1/2
SWITCH ASS'Y AWS-110 1/2
EQUALIZER AMP ASS'Y AWF-023 2/2
PHONO JACK ASS'Y AWX-107 2/2
L CH
R CH
PHONO 2
PHONO 1
TUNER
AUX
TAPE 2
TAPE 1
PLAY BACK
REC
VR1 VOLUME CONTROL
VR2 BALANCE CONTROL
Q1~Q4 2SA725×4
Q1,Q2 2SA725P×2
Q5,Q7 2SC1919×2
Q9 2SA726
Q10 2SA726
2SA725P×2
Q1,Q2 2SC869×2
Q3,Q4,Q6 2SC945A×3
D15~D17 1S2472×3
Q5 2SA733
D18,D19,D21 1S2473×3
D20 1S2471
Q9 2SB526
Q8 2SC1626
D1~D8 30D2×8
D13,D14 WZ-250×2
SWITCHES:
S1 : FUNCTION (1) PHONO 2 (2) PHONO 1 (3) TUNER (4) AUX
S2 : INPUT CAPACITANCE SELECTOR (1) 100 (2) 200 (3) 300 (4) 400
S3 : DUPLICATE (1) 1 → 2 (2) OFF (3) 2 → 1
S4 : TAPE MONITOR (1) 1 (2) OFF (3) 2
S5 : MODE (1) REV (2) STEREO (3) L+R (4) L (5) R
S6 : MUTING OFF → ON
S7 : LOUDNESS OFF → ON
S8 : HIGH FILTER OFF → 8KHz
S9 : LOW FILTER OFF → 15Hz
S10 : TONE OFF → ON
S11 : SPEAKERS (1) OFF (2) A (3) B (4) A+B
S12 : RELAY
S13 : POWER OFF → ON
S14 : BASS TURN OVER (1) 100Hz (2) 200Hz (3) 400Hz
S15 : TREBLE TURN OVER (1) 2kHz (2) 4kHz (3) 8kHz

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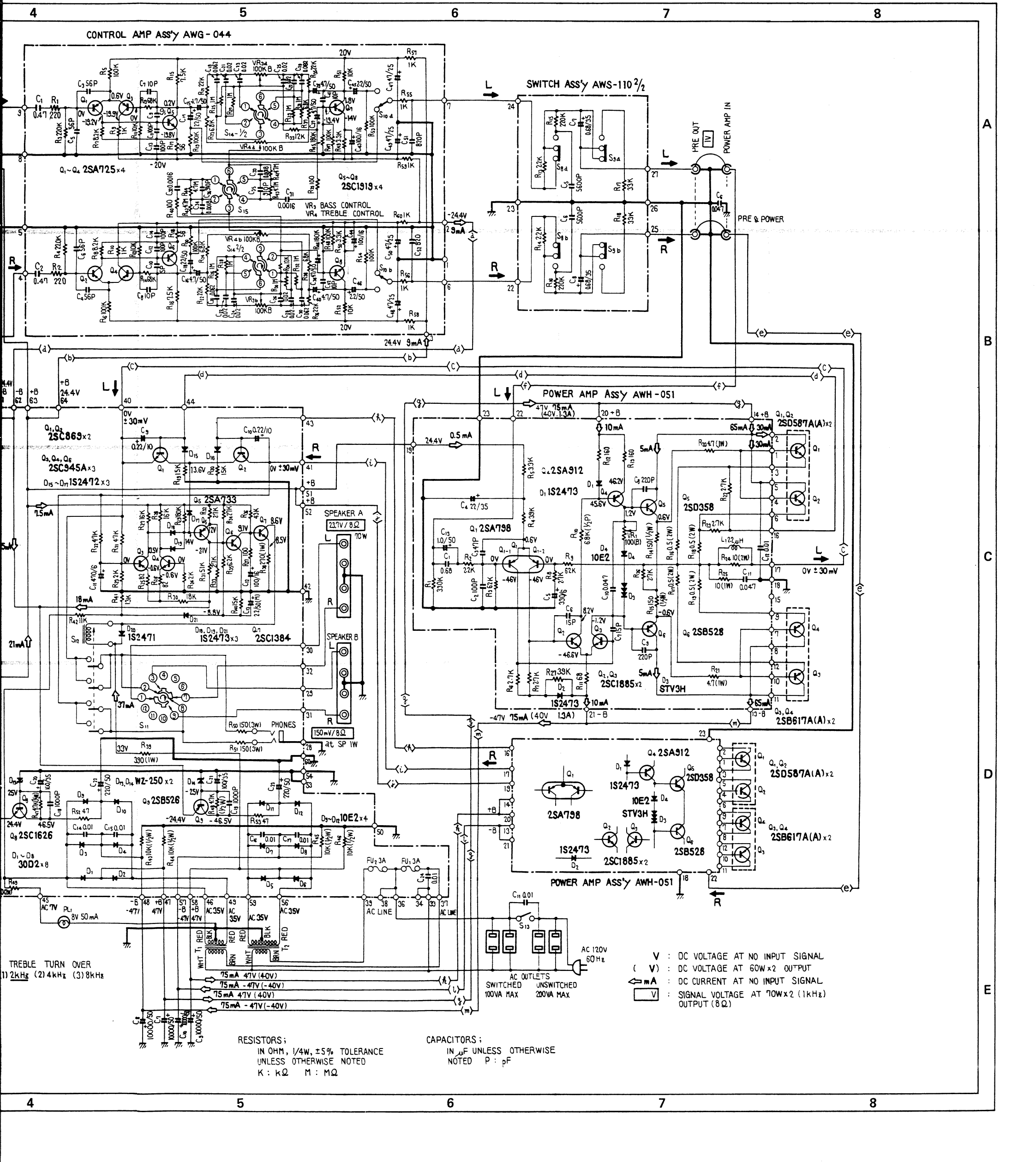
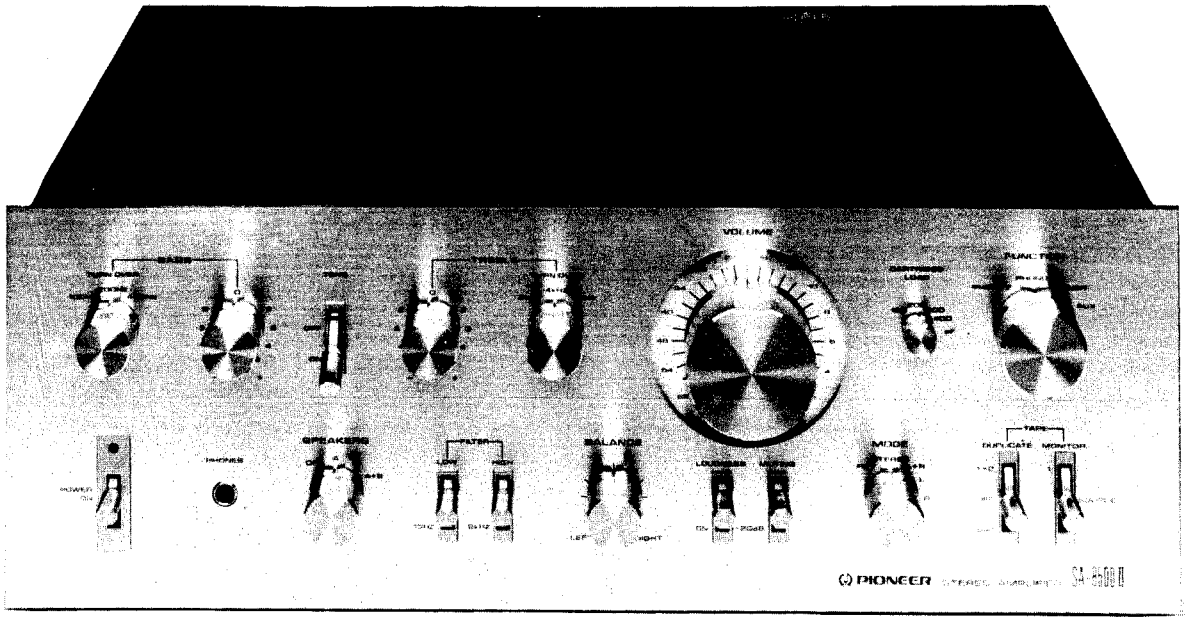

CONTROL AMP ASS'y AWG-044
SWITCH ASS'y AWS-110 2/2
POWER AMP Assy AWH-051
POWER AMP ASS'y AWH-051
PRE OUT
POWER AMP IN
PRE & POWER
Q1~Q4 2SA725×4
Q5~Q8 2SC1913×4
Q1,Q2 2SC869×2
Q3,Q4,Q6 2SC945A×3
D15~D17 1S2472×3
Q5 2SA733
Q7 2SC1384
D18,D19,D21 1S2473×3
D20 1S2471
Q9 2SB526
D13,D14 WZ-250×2
Q8 2SC1626
D1~D8 30D2×8
D9~D12 10E2×4
Q1,Q2 2SA798
Q4 2SA912
D1 1S2473
Q5 2SD358
Q6 2SB528
D4 10E2
D3 STV3H
Q1,Q3 2SC1885×2
Q2,Q4 2SD587A(A)×2
Q3,Q4 2SB617A(A)×2
SPEAKER A
SPEAKER B
VR3 BASS CONTROL
VR4 TREBLE CONTROL
PHONES
TREBLE TURN OVER
(1) 2kHz (2) 4kHz (3) 8kHz
AC 120V 60Hz
AC OUTLETS
SWITCHED 100VA MAX
UNSWITCHED 200VA MAX
V : DC VOLTAGE AT NO INPUT SIGNAL
(V) : DC VOLTAGE AT 60W×2 OUTPUT
⇦mA : DC CURRENT AT NO INPUT SIGNAL
V : SIGNAL VOLTAGE AT 70W×2 (1kHz) OUTPUT (8Ω)
RESISTORS;
IN OHM, 1/4W, ±5% TOLERANCE
UNLESS OTHERWISE NOTED
K : kΩ M : MΩ
CAPACITORS;
IN μF UNLESS OTHERWISE NOTED P : pF

STEREO AMPLIFIER

SA-8500II

SERVICE MANUAL

Original



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738

SCHEMATIC DIAGRAMS, P. C. BOARD PATTERNS AND PARTS LIST

MISCELLANEA

NOTE:
- *Capacitors: in μF unless otherwise noted p:pF*
- *Resistors: in Ω, ¼W unless otherwise noted k:kΩ, M:MΩ*

Miscellaneous Parts

SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor	2SD587A/A/-R or Q
Q2	Transistor	2SD587A/A/-R or Q
Q3	Transistor	2SB617A/A/-R or Q
Q4	Transistor	2SB617A/A/-R or Q
Q5	Transistor	2SD587A/A/-R or Q
Q6	Transistor	2SD587A/A/-R or Q
Q7	Transistor	2SB617A/A/-R or Q
Q8	Transistor	2SB617A/A/-R or Q

LAMP, FUSES

Symbol	Description	Part No.
PL1	Lamp with leads 8V, 50mA	AEL-081
FU1	Fuse 3A	AEK-101
FU2	Fuse 3A	AEK-101

SWITCH

Symbol	Description	Part No.
S13	Lever switch (POWER)	ASK-124

TRANSFORMERS

Symbol	Description	Part No.
T1	Power transformer (L)	ATT-366
T2	Power transformer (R)	ATT-367

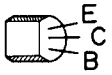
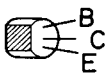
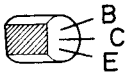
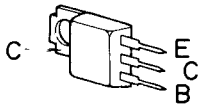
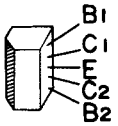
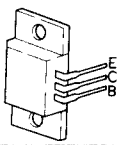
RESISTOR

Symbol	Description	Part No.
VR1	Variable resistor 100k 32-step (VOLUME)	ACV-171

CAPACITORS

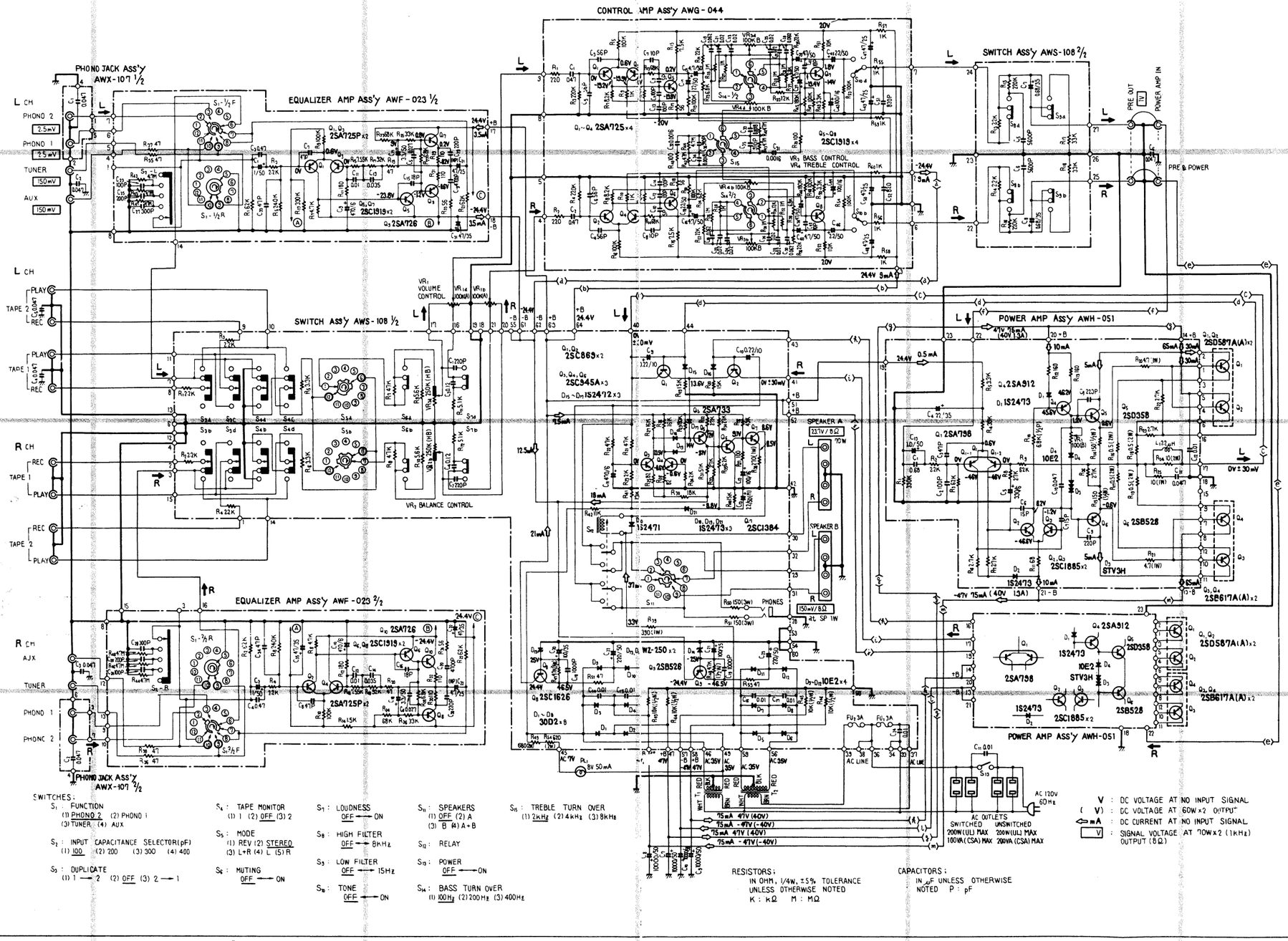
Symbol	Description			Part No.
C2	Ceramic	0.047	50V	CKDYF 473Z 50
C3	Ceramic	0.047	50V	CKDYF 473Z 50
C4	Ceramic	0.047	50V	CKDYF 473Z 50
C5	Ceramic	0.047	50V	CKDYF 473Z 50
C6	Ceramic	0.047	50V	CKDYF 473Z 50
C7	Electrolytic	10,000	50V	ACH-064
C8	Electrolytic	10,000	50V	ACH-064
C9	Electrolytic	10,000	50V	ACH-064
C10	Electrolytic	10,000	50V	ACH-064
C11	Ceramic	0.01	250V	ACG-001

External Appearances of Transistors

Type	Fig.
2SA725 2SA725P 2SA726 2SC869 2SC1919	
2SA733 2SC945A	
2SA912 2SC1384 2SC1885	
2SB526 2SD356	
2SA798	
2SB617A(A) 2SD587A(A)	

SCHEMATIC DIAGRAM

NOTE:
The indicated semiconductors are representative ones only. Other alternative semiconductors may be used and are listed in the parts lists.



SWITCHES:

S_1 : FUNCTION
(1) PHONO 2 (2) PHONO 1
(3) TUNER (4) AUX

S_2 : INPUT CAPACITANCE SELECTOR(pF)
(1) 100 (2) 200 (3) 300 (4) 400

S_3 : DUPLICATE
(1) 1 → 2 (2) OFF (3) 2 → 1

S_4 : TAPE MONITOR
(1) 1 (2) OFF (3) 2

S_5 : MODE
(1) REV (2) STEREO
(3) L+R (4) L (5) R

S_6 : MUTING
OFF ⟷ ON

S_7 : LOUDNESS
OFF ⟷ ON

S_8 : HIGH FILTER
OFF ⟷ 8KHz

S_9 : LOW FILTER
OFF ⟷ 15Hz

S_{10} : TONE
OFF ⟷ ON

S_{11} : SPEAKERS
(1) OFF (2) A
(3) B (4) A+B

S_{12} : RELAY

S_{13} : POWER
OFF ⟷ ON

S_{14} : BASS TURN OVER
(1) 100Hz (2) 200Hz (3) 400Hz

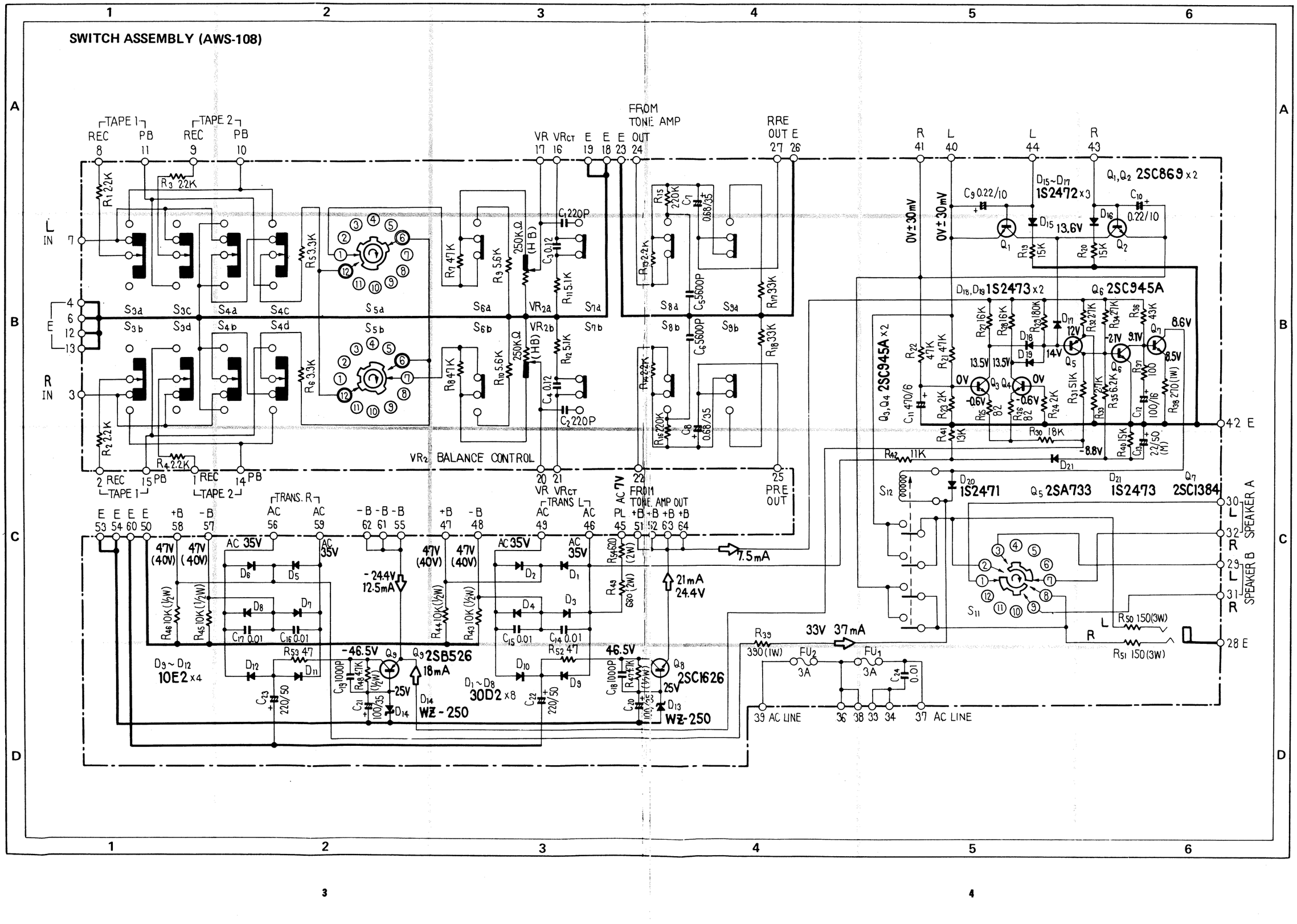
S_{15} : TREBLE TURN OVER
(1) 2kHz (2) 4kHz (3) 8kHz

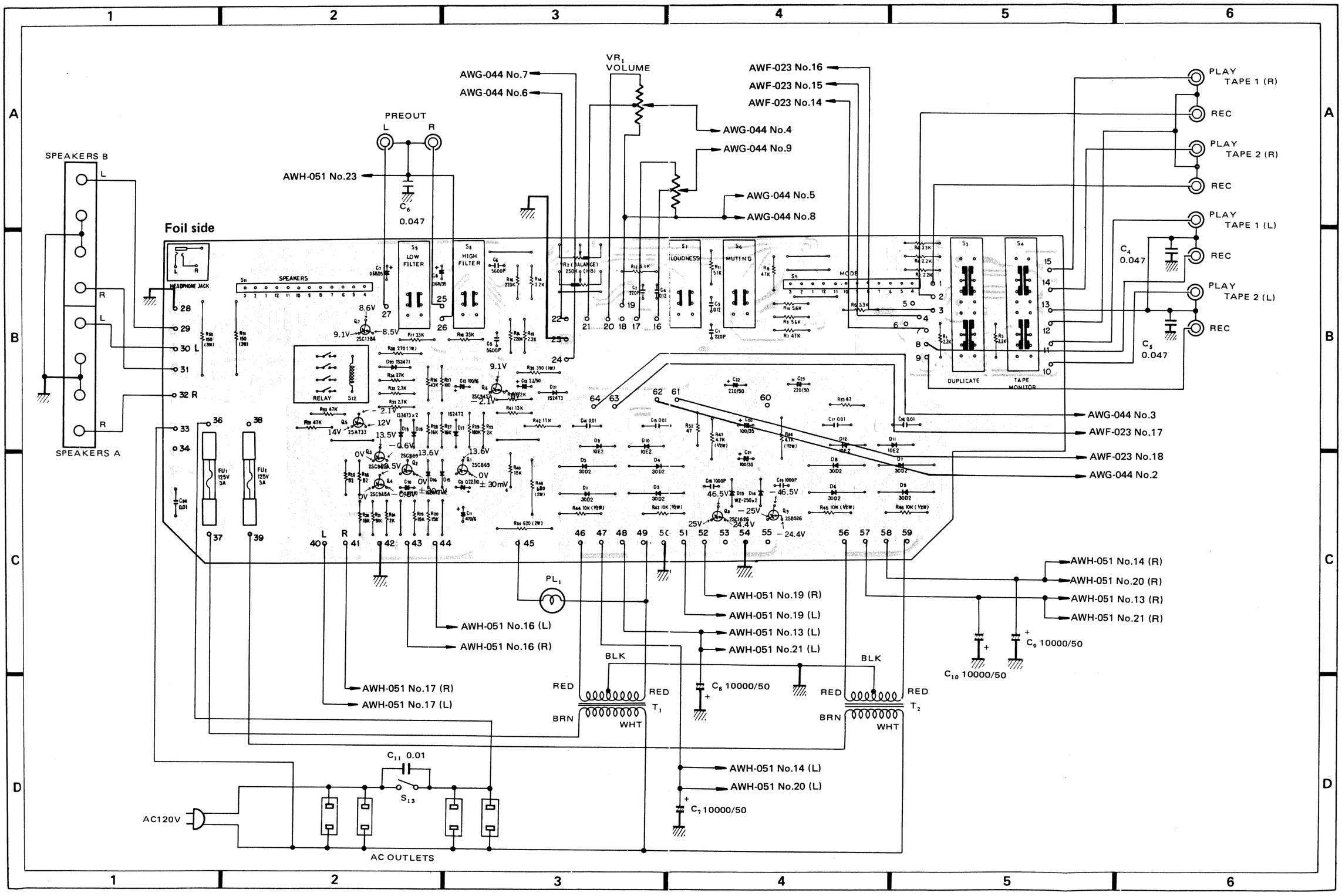
V : DC VOLTAGE AT NO INPUT SIGNAL
(V) : DC VOLTAGE AT 60W×2 OUTPUT
⇦mA : DC CURRENT AT NO INPUT SIGNAL
V : SIGNAL VOLTAGE AT 10W×2 (1kHz) OUTPUT (8Ω)

RESISTORS:
IN OHM, 1/4W, ±5% TOLERANCE
UNLESS OTHERWISE NOTED
K : kΩ M : MΩ

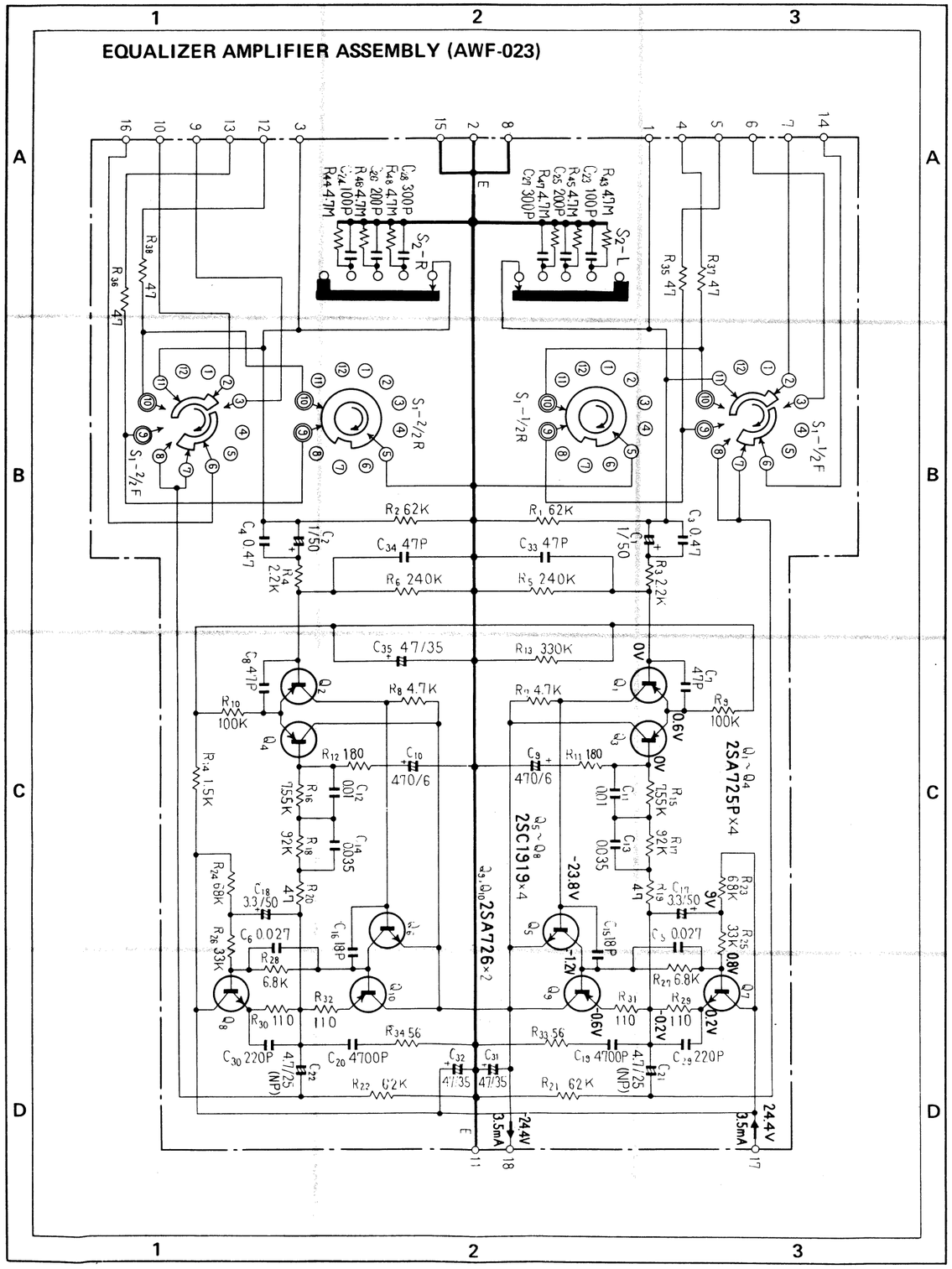
CAPACITORS:
IN μF UNLESS OTHERWISE NOTED P : pF

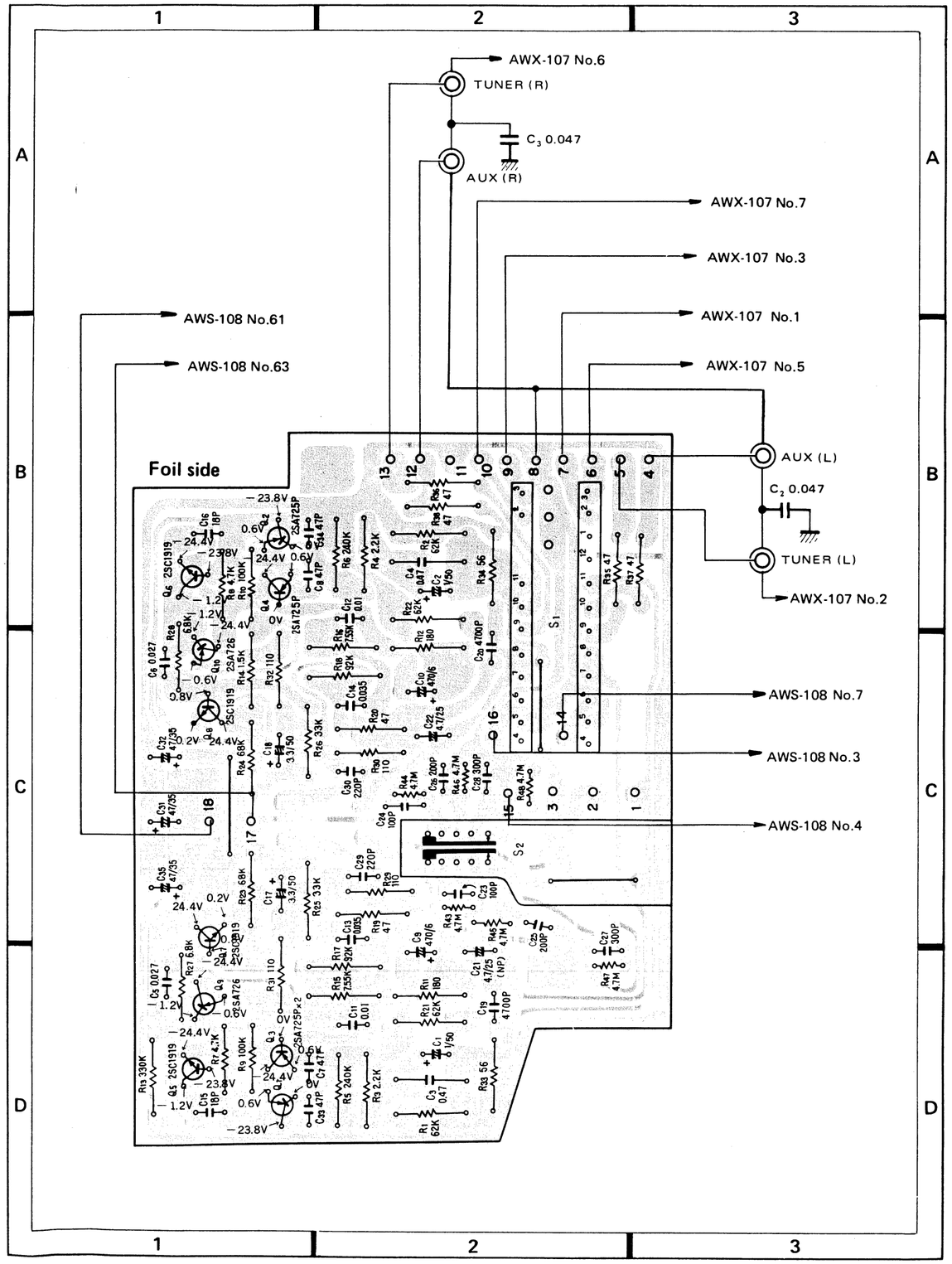
SWITCH ASSEMBLY (AWS-108)



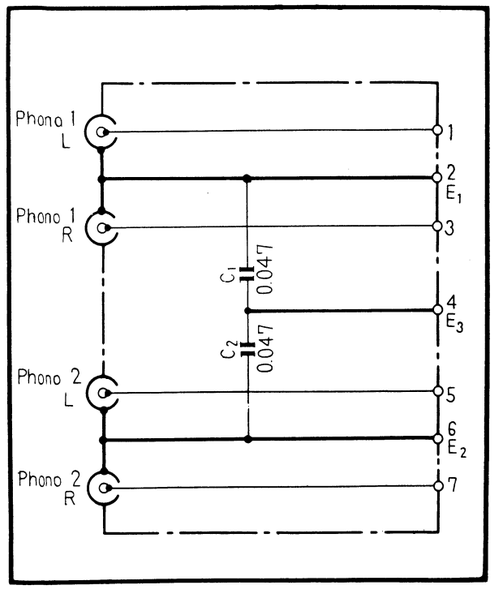

1
2
3
4
5
6
A
B
C
D
SPEAKERS B
L
R
L
R
SPEAKERS A
Foil side
HEADPHONE JACK
SPEAKERS
RELAY
PREOUT
L
R
AWH-051 No.23
C6 0.047
VR1 VOLUME
AWG-044 No.7
AWG-044 No.6
AWG-044 No.4
AWG-044 No.9
AWG-044 No.5
AWG-044 No.8
AWF-023 No.16
AWF-023 No.15
AWF-023 No.14
LOW FILTER
HIGH FILTER
LOUDNESS
MUTING
MODE
DUPLICATE
TAPE MONITOR
PLAY TAPE 1 (R)
REC
PLAY TAPE 2 (R)
REC
PLAY TAPE 1 (L)
REC
PLAY TAPE 2 (L)
REC
C4 0.047
C5 0.047
AWG-044 No.3
AWF-023 No.17
AWF-023 No.18
AWG-044 No.2
AWH-051 No.14 (R)
AWH-051 No.20 (R)
AWH-051 No.13 (R)
AWH-051 No.21 (R)
C9 10000/50
C10 10000/50
PL1
AWH-051 No.16 (L)
AWH-051 No.16 (R)
AWH-051 No.19 (R)
AWH-051 No.19 (L)
AWH-051 No.13 (L)
AWH-051 No.21 (L)
BLK
RED
RED
BRN
WHT
T1
C8 10000/50
BLK
RED
RED
BRN
WHT
T2
AWH-051 No.17 (R)
AWH-051 No.17 (L)
C11 0.01
S13
AC120V
AC OUTLETS
AWH-051 No.14 (L)
AWH-051 No.20 (L)
C7 10000/50
FU1 125V 3A
FU2 125V 3A
C84 0.01
8.6V
9.1V
8.5V
2SC1384
2SA733
2SC945A
2SC869
2SB526
2SC1626
WZ-250x2
46.5V
25V
24.4V
± 30mV

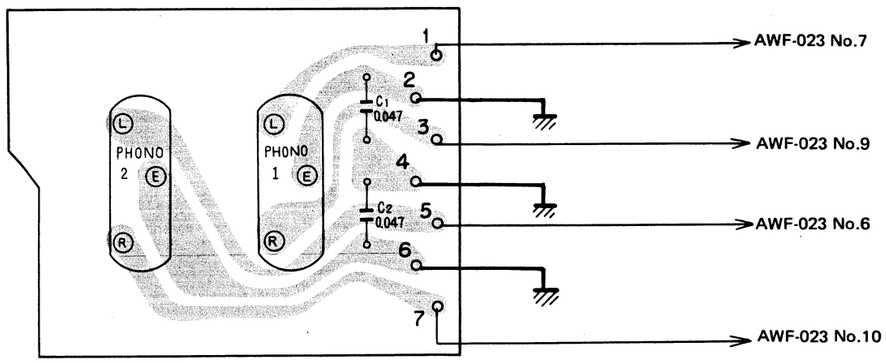
EQUALIZER AMPLIFIER ASSEMBLY (AWF-023)



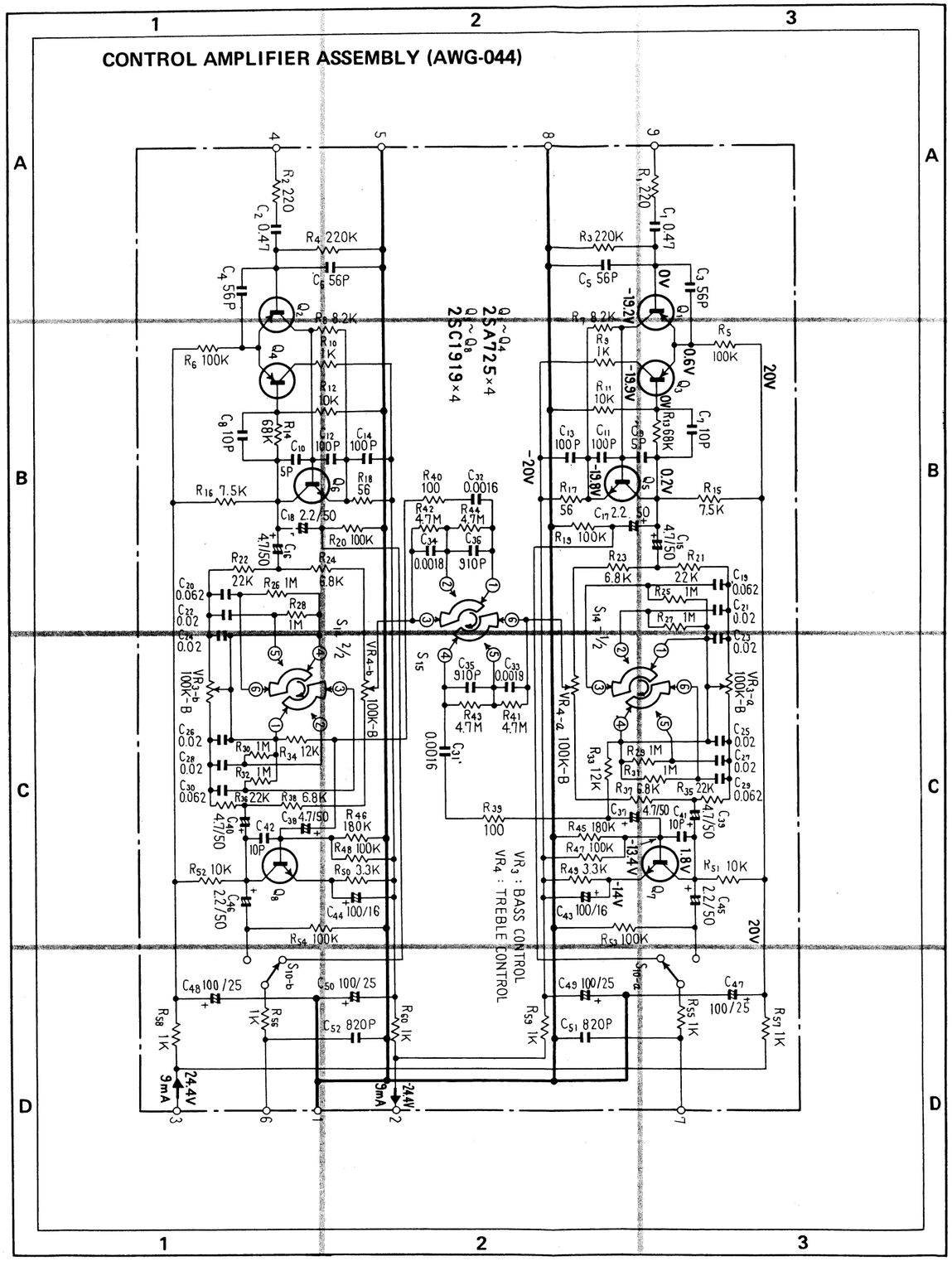


PHONO JACK ASSEMBLY (AWX-107)

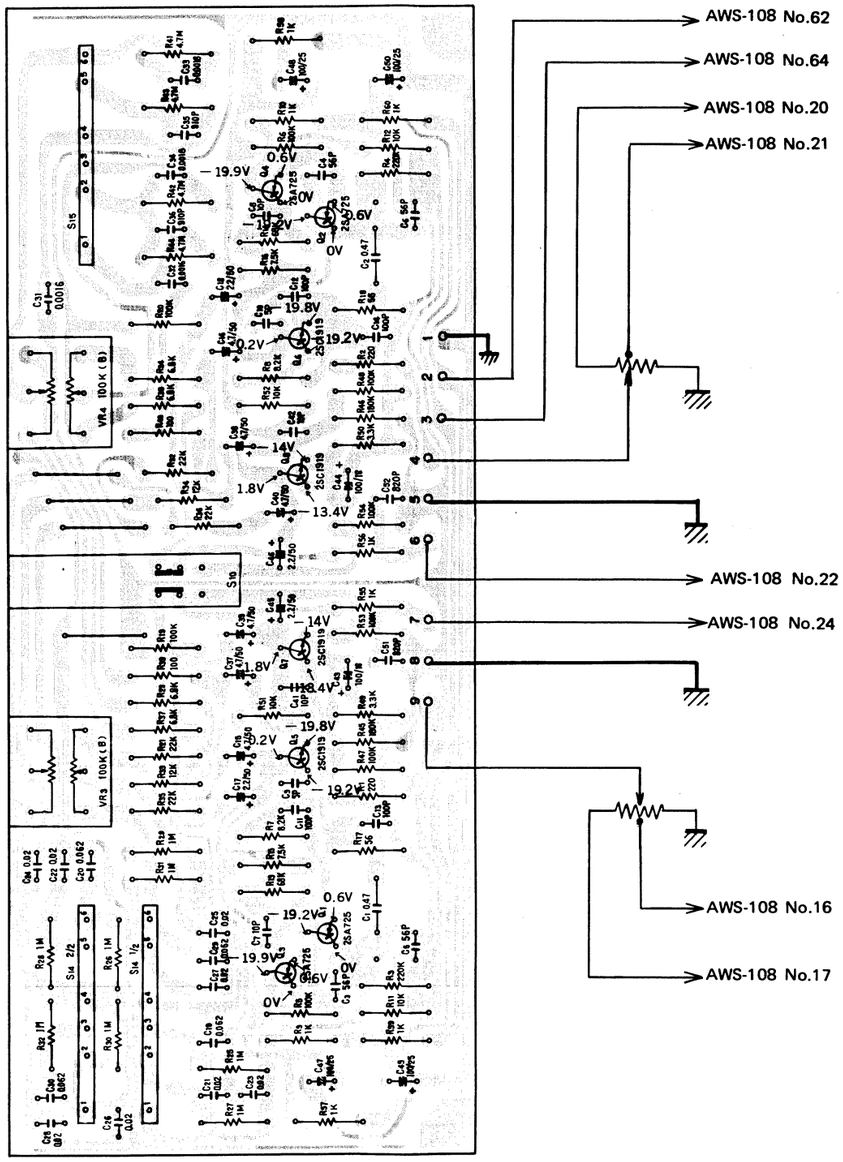




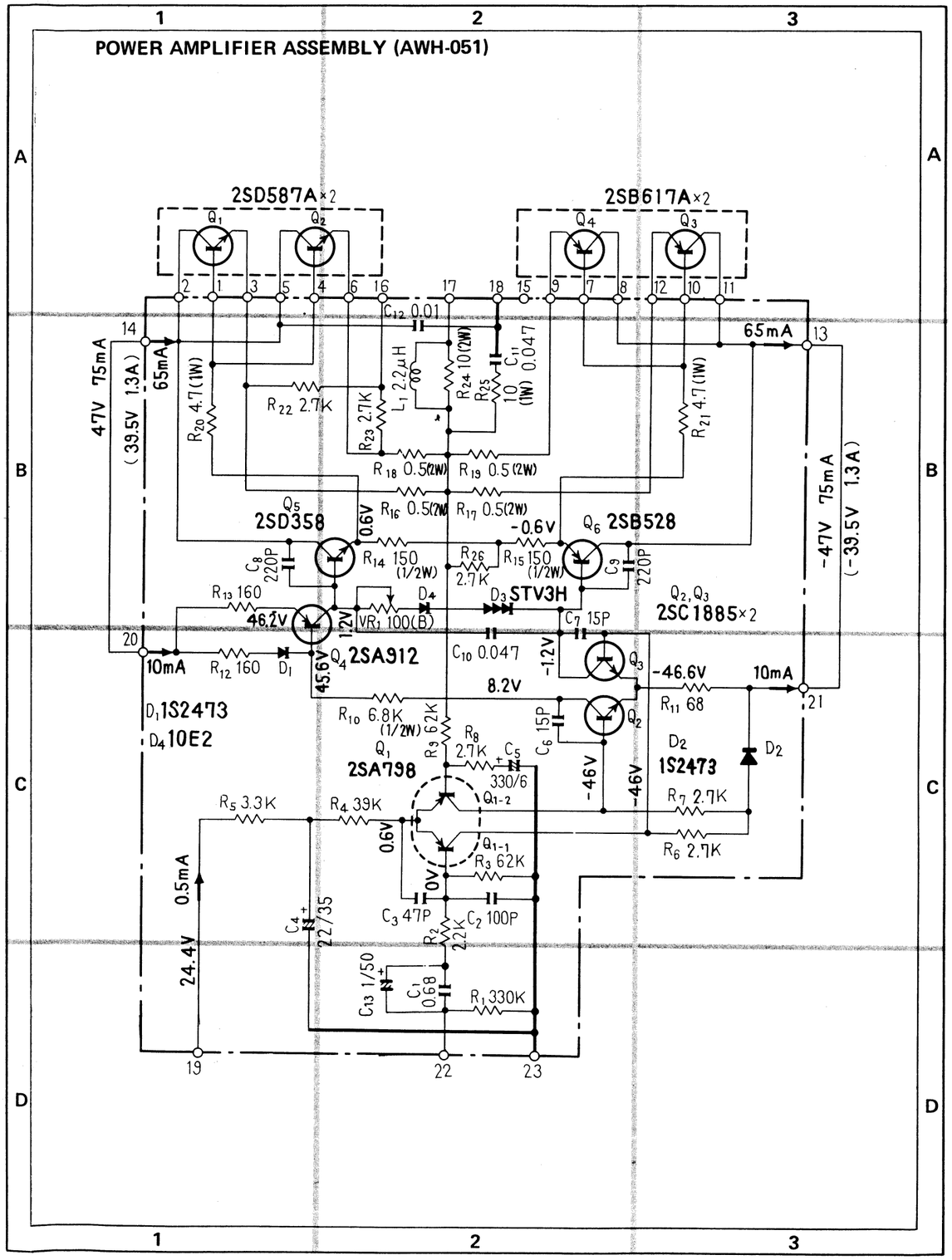
CONTROL AMPLIFIER ASSEMBLY (AWG-044)

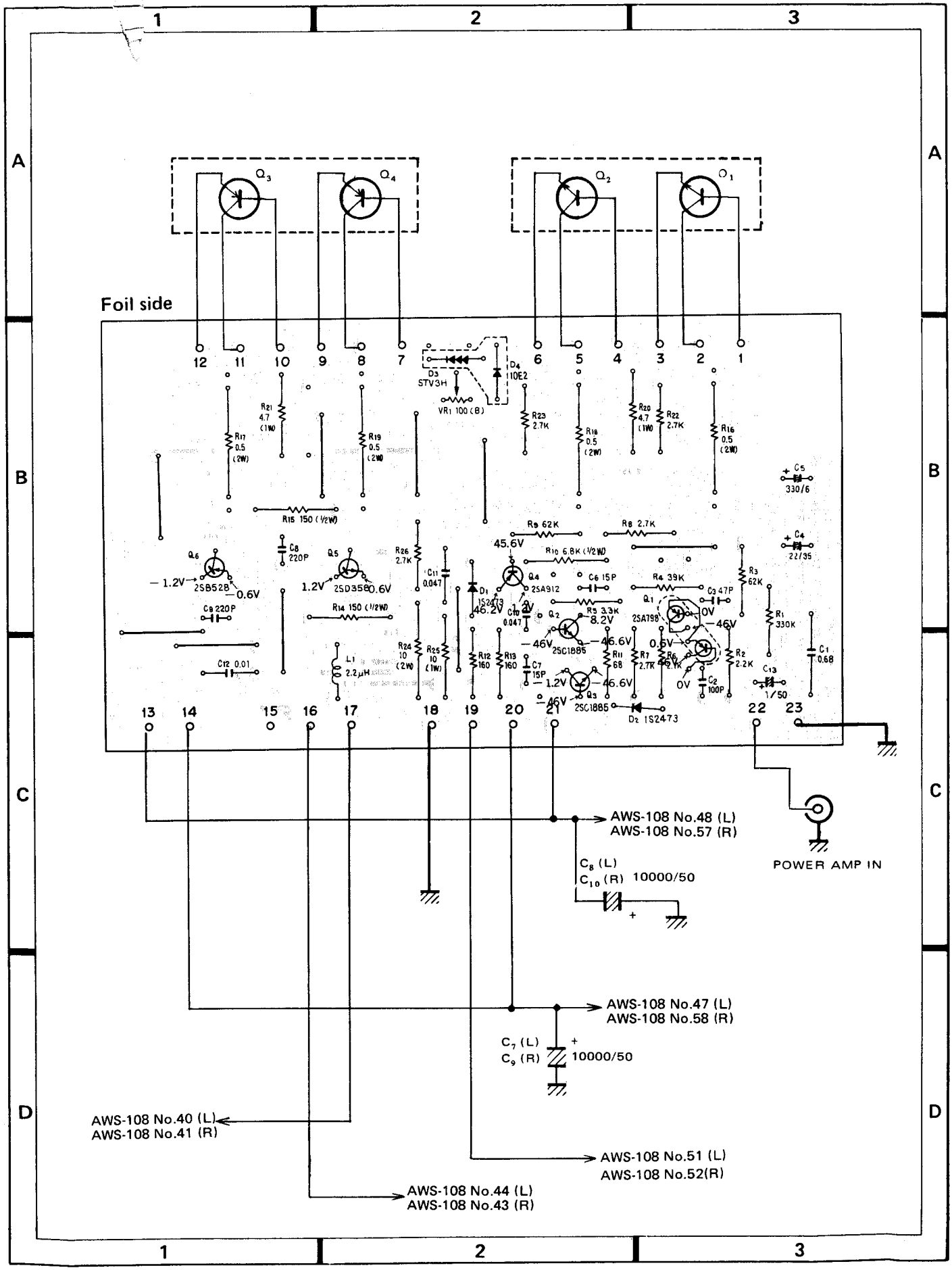


Foil side



POWER AMPLIFIER ASSEMBLY (AWH-051)




Foil side
POWER AMP IN
AWS-108 No.48 (L)
AWS-108 No.57 (R)
C8 (L)
C10 (R) 10000/50
AWS-108 No.47 (L)
AWS-108 No.58 (R)
C7 (L)
C9 (R)
10000/50
AWS-108 No.40 (L)
AWS-108 No.41 (R)
AWS-108 No.51 (L)
AWS-108 No.52(R)
AWS-108 No.44 (L)
AWS-108 No.43 (R)